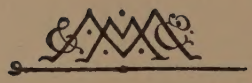
A CRITICAL EXPOSITION OF BERGSON'S PHILOSOPHY



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A CRITICAL EXPOSITION

OF

BERGSON'S PHILOSOPHY

BY

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PREFACE

THE purpose of this work is not exposition, but criticism. Professor Bergson's thought is elaborated only to such an extent as to ensure that the criticism shall be intelligible. I am conscious that in outlining the main ideas of his philosophy I have stripped them of the brilliant metaphorical dress in which Bergson himself has clothed them, and divorced them from the charm of a peculiarly flexible and graceful literary style. My only defence is that metaphor is not always conducive to clearness, and that illustration is apt to be confused with argument. My aim has been to present clearly the root ideas of his philosophy, so far as they appear in the work which he has made public; to examine their validity; and to consider their value as a contribution to modern philosophic thought.

J. M'KELLAR STEWART.

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THE INTUITIVE METHOD

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INTRODUCTION

THE INTUITIVE METHOD

IN the *Critique of Pure Reason* Kant complains that Metaphysics has not been able to enter into the sure path of a science, and he sets himself the task of expounding a method by means of which such an entrance may be secured and progress achieved. Bergson, too, is dissatisfied with the progress hitherto made by philosophy, and also with the outlook even from the Kantian and post-Kantian point of view. He, too, has the desire to lead metaphysics into the sure path of a science capable of indefinite progress, and with this end in view he formulates his method.

It is necessary to emphasize from the beginning the fact that Bergson's philosophy is essentially a *method.* He himself has made certain applications of this method, which it will be our task to examine, but from the very nature of the method we should not expect to find in his philosophy a definitely formulated *system.* Bergson repeatedly draws attention to this fact. The metaphysic which he has in view is "a positive metaphysic, susceptible of a rectilinear and indefinite progress:"[1] a metaphysic which shall not be "a science analogous to mathematics, forced to maintain the clear simplicity and trenchant dogmatism of that

[1] "Le Parallélisme Psycho-Physique et la Méta. Positive" (*Bull. de la Soc. fran. de Phil.*, Juin 1901), p. 33.

science."[1] "On the contrary, the metaphysic of the future will be a science empirical in its method, progressive, and restricted, like the other positive sciences, in that it gives us only provisionally the last results to which it has been led by an attentive study of the real."[2] "It must break through the mathematical categories, and take account of the sciences of biology, psychology, and sociology."[3] On this broader basis will be raised "a metaphysic capable of mounting ever higher and higher by means of the continuous, progressive, organized effort of all the philosophers associated in the same deference to experience."[4] He admits that "a philosophy of this kind is not made in a day. In contrast with the systems, properly so-called, each of which was the work of a man of genius and presented itself as a whole, to be taken or left, it can be constituted only by the collective and progressive effort of many thinkers, and of many observers also, completing, correcting, reforming one another."[5]

Bergson desires to summon philosophers to the employment of a method by means of which there will be gradually formed a large philosophy, always progressing and positive, "in which opinions shall furnish their own proof, correct one another, and end by agreeing with one another in contact with one and the same experience."[6] No one single philosopher can hope to complete the task of philosophy, any more than any one scientist can expect to unravel the secrets of nature, but every philosopher may employ the one *method* by means of which the windings of reality in its incessant movements may be marked. By an

[1] "Le Parallélisme Psycho-Physique et la Méta. Positive, p. 50.
[2] *Ibid.* p. 50. [3] *Ibid.* p. 57.
[4] *Ibid.* p. 57. [5] *E.C.* Introd. p. vii.
[6] "Le Parallélisme Psycho-Physique et la Méta. Positive," p. 47.

indefinite series of efforts of the same *kind* under the guidance of this method, a positive, ever-growing system of philosophy will be formed, and the various degrees of being stand revealed to our vision.

The foundation of Bergson's philosophy is his method of intuition. "Philosophizing just consists in placing one's self, by an effort of intuition, in the interior of concrete reality."[1] By intuition is meant "that kind of *intellectual sympathy* by means of which one transports one's self to the interior of an object so as to coincide with that which constitutes the very reality of the object, the *unique* reality, consequently inexpressible"[2] (in concepts). Briefly, to philosophize is to feel the palpitating of the heart of reality.

When Kant was seeking a safe method for philosophy he was guided by the methods which had succeeded in scientific construction. He passed in review the sciences of formal logic, mathematics, and physics, and proceeded to extend to philosophy the method of hypothesis which had been found successful in physics. Hence his demand that objects should conform to our faculty of knowledge; hence his constant proof by reference to the possibility of experience.

Kant was influenced in his dissection of the faculty of knowledge by the state of science in his time. Mathematics, physics, and, to a less extent, chemistry, had attained to a high degree of perfection; psychology and biology were quite undeveloped. The application of Kant's critical method consisted in discovering what the nature of our mind must be, and what the constitution of nature must be, *if* the pretensions of the science of his time were justified; but of these pretensions themselves he has not made any criticism. "He accepted without discussion," says Bergson, "the idea

[1] *I.M.* p. 86. [2] *Ibid.* p. 6.

of a single science, capable of binding with the same cogency all parts of the given, and of co-ordinating them in a system which should present in all its parts an equal stability." [1]

Kant's categories are for him the conditions of all possible knowledge, but these categories are the general notions which form the foundation of science in one of its stages—in the mechanical stage. That this is implicit is Kant's system, though not intentionally so, we may see from one of the later developments of his thought, which issued in philosophical agnosticism, and in the elevation to an exclusive validity of the physical and mathematical sciences. Bergson's criticism of Kant is that he did not realize, in the *Critique of Pure Reason*, that science becomes less and less objective, more and more symbolic, in proportion as it proceeds from the physical to the vital, from the vital to the psychical. Experience does not move, in his eyes, in two different and perhaps opposed directions, the one conformable to the direction of the intelligence, the other contrary to it. There is, for him, only *one* experience, and intelligence covers its whole ground. Kant expresses this by saying that all our intuitions are sensuous, or, in other words, infra-intellectual. And this would have to be admitted, in fact, if our science presented in all its parts an equal objectivity. But suppose, on the contrary, that science is less and less objective, more and more symbolic, as it proceeds from the physical to the psychical, passing through the vital: then, as it is certainly necessary to perceive a thing in some way in order to succeed in symbolizing it, there would be an intuition of the psychical, and, more generally, of the vital, which the intelligence would doubtless transpose and translate, but which would, none the less, transcend the intelli-

[1] *E. C.* p. 388 (Eng. Tr. p. 379).

gence. There would be, in other words, a supra-intellectual intuition"[1]

Kant was landed in an opposition between understanding and reason, between categories and ideas, between phenomena and noumena, between nature and spirit. Knowledge, for him, was confined to phenomena; we may *think* God, Freedom, Immortality, as limiting or regulative "ideas," but we cannot *know* them. This limitation of knowledge to the phenomenal, and this problematic conception of noumenal reality arise from the difficulty in which Kant involved himself by taking his cue as to the nature of mind from the science of his day. If it be true that "ὅμοιον ὁμοίῳ αἰσθάνεται," and if the analysis which Kant has made of the universal modes of synthesis, or the logical conditions of all knowledge be correct, then it would seem to follow that all which can be known is the material, the mechanical, the mathematical. The nature of his categories precluded, made impossible, the *knowledge* of human freedom, for example. The framework of intelligence or understanding was such for Kant that freedom could not be fitted into it. Freedom must be relegated to the sphere of faith. "If one reads closely the *Critique of Pure Reason* one sees that Kant has criticized, not reason in general, but reason fashioned to the habits and exigencies of the Cartesian mechanical theory or of the Newtonian physics. If there be a *single* science of nature (and Kant does not seem to doubt this), if all phenomena and all objects are spread out on one and the same plane, so that our knowledge of them will be a single and continuous but entirely superficial experience (and such is the constant hypothesis of the *Critique of Pure Reason*), then there is only one sort of causality in the world; all phenomenal causality implies

[1] *Ibid.* pp. 388-389 (Eng. Tr. p. 380).

rigorous determination, and one must seek for liberty outside of experience."[1]

Bergson, so far as I can see, does not quarrel with Kant's conception of the nature of the human understanding, nor does he contend for an extension of its dominion. It is true that he repudiates with decision any suggestion that intelligence-knowledge is relative, and maintains that, while it may be limited knowledge, it brings us, in a very true sense, into touch with the "absolute," if we understand by that term no more than reality in some one of its windings. In other words, Bergson discards, in the first place, the distinction between noumena and phenomena, and substitutes for it the notion of two opposed movements constitutive of reality—spirituality or duration on the one hand, and materiality or matter on the other. In the second instance, he replaces the distinction between understanding in the narrow sense as the faculty of conceptions, and reason as the faculty of ideas, by the distinction between two complementary but opposed faculties of knowledge, intelligence and intuition. Bergson will have nothing to do with "things-in-themselves," either with subjects in themselves or with objects in themselves. He will not allow for a moment that we are condemned to the phantom of an incomprehensible "thing-in-itself," but insists that by means of intelligence and intuition, complementary faculties, we are introduced into the absolute. By means of that which is material in ourselves we are enabled to know matter; and by means of that which is vital and spiritual in ourselves we can come into sympathy with life and spirit. The principle here implied—that of "ontological affinity" between knower and known—seems to be an unobjectionable one. The

[1] "Le Parallélisme Psycho-Physique et la Méta. Positive," p. 63.

difficulty arises when we come to analyse the nature of the knower. Kant illegitimately limited that nature, and so limited the knowable. Bergson seeks a more accurate analysis, though in a way far removed from Kant's deduction. He endeavours to establish the position that the faculty of knowledge as Kant understood it is a mere fragment of that faculty in its entirety.

It is not by increasing the number of the categories of understanding or intelligence by adding, for example, such a one as that of "purpose" that mechanical limits will be removed, and life and spirit brought within the grasp of intelligence. In virtue of its very nature it is incapable of seizing the meaning of life. Even when it makes use of teleological conceptions it merely *appears* to escape a mechanical theory of life, for the most radical finalism is only an inverted mechanical theory. In short, no multiplication of the conceptions of intelligence will ever bring us into closer touch with life and spirit, for the concept applies only to the static, the inert, the permanent, whereas life is always going, ever becoming. Intelligence is characterized by a native inability to comprehend life. Its work is to re-constitute, and to re-constitute with ready-made conceptions, so that what is *new* in each moment of a history escapes it, and still more the process itself from moment to moment is beyond its grasp. If the intelligence were capable of knowing reality in its fulness then the assumption would be necessary that reality is given, in its completeness, from all eternity. This conception of reality is fundamentally opposed to Bergson's view of life and mind; consequently he insists on the limitations of intelligence as a faculty of knowledge.

Must life and mind, then, be relegated to the sphere

of unknowable realities? Is life in its creative activity incomprehensible? Must man for ever remain deprived of its secret? Must he content himself with taking a number of snap-shots of it as it glides by; pictures which show him only patches of its surface? Must he despair of entering into the sanctuary in which life shows itself in the making? Truly, if intelligence were his only faculty of knowledge, and if intelligence were such as Bergson holds it to be, the way of the knowledge of life would be closed, and its secret remain hidden from human eyes. But this is not the tragic conclusion of Bergson's philosophy. Life may stubbornly refuse to yield up its secret to intelligence, but it can be known by a second faculty, which man possesses in germ, and which he may develop—the faculty of intuition. It is vague and discontinuous—"an almost extinguished lamp, which flickers up only at intervals for a few instants." Nevertheless, by a literally superhuman effort the philosopher may transcend the point of view of intelligence, and by a stroke of sympathetic insight perceive or feel the impulsion at the heart of reality. Experience is not confined within the bounds of rational experience; thought is wider than reasoned thought. Intelligence is supplemented by intuition, and a perfect humanity would be one in which intuition and intelligence were both developed; for intelligence, as it progresses, gives us a clearer knowledge of matter, and so enables us to adapt ourselves to our material environment; and intuition, as it develops, projects a flickering and feeble light upon "our personality, our freedom, the place which we occupy in the whole of nature, our origin, and perhaps also our destiny." Thus the facts which Kant has extruded from knowledge and relegated to faith are brought again by Bergson within the sphere of knowledge by means of intuition.

Intelligence and intuition are thus two opposed and yet complementary ways of knowing reality, and the boundary between the two marks the dividing line between scientific and philosophic knowledge. Intelligence finds its proper sphere of activity within the positive sciences. In the mathematical sciences it is perfectly at home, and since matter is ballasted, as it were, with geometry, mathematics is not a game played with concepts, but a veritable grappling with reality, with the absolute—that is, in this case, with matter. The physical sciences enunciate laws, "the form of which would have been different if other variables had been chosen, other units of measurement, and, above all, if the problems had been propounded, chronologically, in a different order." [1] "*De jure*, however, physics grasps the absolute, and it approaches this ideal limit more and more as it advances.... I am of opinion that it is reality in itself, absolute reality, which the mathematical and physical sciences reveal to us." [2] Intelligence succeeds in the sciences, because they have ultimately a practical aim, and intelligence is the instrument of action. What, Bergson asks, is the essential object of science? "It is to increase our influence on things. Science may be speculative in its form, disinterested in its immediate ends; in other words, we may give it credit as long as it wishes; but the day of reckoning cannot be indefinitely postponed, some time or other payment must be made. It is then, in short, always practical utility which science has in view. Even when it launches itself into theory, science is bound to adapt its procedure to the general configuration of the practical. However high it makes its flight,

[1] "Enquête sur l'Enseignement de la Phil." (*Bull. de la Soc. fran. de Phil.*, Janvier 1908), p. 21.

[2] *Ibid.* p. 21.

it must be ready to come down again into the field of action, and at once to get on its feet there. This would not be possible for it, if its rhythm differed absolutely from that of action itself."[1] The physical sciences tend, then, to reveal to us the nature of matter, not in any relative way, but as it really is.

"Science begins to become relative, or rather symbolic, only when it attacks the problems of life and consciousness from the side of physico-chemistry."[2] Provided that we recognize physico-chemical knowledge of life to be relative or symbolic, we may attribute a certain value to biology, but this symbolic or relative knowledge must be completed by "a study of another kind, which is metaphysic," and which works by means of intuition. Parallel to modern scientific knowledge "there ought to be constituted a second kind of knowledge which would retain what physics allows to escape.... One must transport one's self by an effort of sympathy to the interior of that which becomes," and attempt to follow the flux itself of the real. In successive efforts of intuition, philosophy must pursue its task. Philosophy thus introduces us into spiritual life. That is its domain.

In this way Bergson sees the possibility of bringing about "a reconciliation between metaphysic and science, and of supporting the one by the other, without the sacrifice of either, after having sharply distinguished between them."[3] One may safely say that this is one of the chief ends of his philosophic method. He says, in fact, that his method has primarily in view "the removal of the opposition which Kant established between meta-

[1] *E.C.* p. 356 (Eng. Tr. p. 348).

[2] "Enquête sur l'Enseignement de la Philosophie," p. 21.

[3] *Ibid.* pp. 21 and 22.

physic and science."[1] He sees also the possibility of removing those antinomies which reason has to face by causing the problems round which they range themselves to disappear, by maintaining the thesis that they arise only when intellect illegitimately extends its range so as to include speculation, and that they vanish in the intuition.

Bergson is openly opposed to that view of philosophy which would restrict its task to criticism of the faculty of knowledge, and to that view which would, in addition, aim at the super-position, if possible (by means of intelligence), of a metaphysic upon the structure of the sciences. According to such a view, knowledge itself, in its materiality, that is, actual experiencing, would be an affair of science and not of philosophy, whose work would be reduced to "formulating, purely and simply, in more precise terms, the unconscious and, therefore, inconsistent metaphysic and critique which the very attitude of science towards reality marks out.... He who has begun by reserving to philosophy questions of principle, and who aims at thereby placing philosophy above the sciences, as a 'Cour de Cassation' is above the courts of assizes and of appeal, will be led, by degrees, to make it no more than a simple court of registration, the highest duty of which is to record, in more precise terms, the irrevocably imposed sentences which are brought to it."[2] The work of philosophy must be, in a sense, independent of that of science. Science "treats the living in the same way as the inert," consequently, however fully it may succeed in dealing with matter, it cannot, in the form of biology, meet with success, for the science of biology "is merely an extension of physics to an object of which we agree *a priori* to

[1] "Le Parallélisme Psycho-Physique et la Méta. Positive," p. 63.
[2] *E.C.* pp. 212 and 213 (Eng. Tr. pp. 205 and 206).

envisage only the external aspect. The duty of philosophy would be, then, to intervene actively here, to examine the living without *arrière-pensée* as to practical utility, by disengaging itself from forms and habits peculiarly intellectual. Its object is to speculate, that is, to see; its attitude towards the living should not be that of science, which aims only at action, and which, being able to act only by means of inert matter, envisages the rest of reality under this single aspect." [1] The faculty of speculation is the intuition. If philosophy is content to follow in the train of science, then, *a priori*, its scope and nature are determined. If it receives from positive science the laws of biology and psychology, then it is compelled, from the outset, to a mechanical conception of nature in its entirety; for science is fundamentally practical in its aims; its instrument of knowledge is intelligence, and intelligence, on Bergson's view, can apprehend only the inert, the spatial, the mechanical. Such a philosophy will issue in the doctrine of the simple unity of knowledge and of the abstract unity of nature. Bergson's argument, at this point, involves the assumption that intelligence is bare identity. In the nature of the case, then, a metaphysic which is the highest product of intelligence will be doomed to oscillate between a metaphysical dogmatism which erects into an absolute the factitious unity of science, and a scepticism or relativism in which is generalized and extended to the whole domain of science the artificial character of its results in the spheres of biology and psychology, the facts of which have refused to reduce themselves to identity or even to enter into pre-determined categories. Intuition alone cuts the knot.

From this point of view, philosophy has a definite

[1] *E.C.* p. 214 (Eng. Tr. p. 207).

task assigned to it, has its boundaries definitely marked out, and yet an open way of progress lies before it. Within the realm of life and consciousness, or, generally, where there is process or growth, science achieves merely relative and symbolic knowledge. The task of philosophy is to build a progressive knowledge of these realities which shall be no longer symbolic. The philosopher will range himself alongside the artist and the poet. He will, like them, express himself through metaphor, image, and symbol, clear conceptual expression being reserved to the products of the scientific intelligence. As metaphysician the philosopher will, like the poet and the artist, live by flashes of inspiration; he will feel the passage of this "breath" through him and gain a sympathetic insight into the heart of things. By successive efforts of intuition or intellectual expansion, he will follow the windings of life and consciousness in all the movements of their qualitative processes. "Thus all our knowledge, scientific or metaphysical, is raised. In the absolute we live and move and have our being. The knowledge of it which we have is, doubtless, incomplete, but not external or relative. It is being itself in its inner nature which we grasp through the combined and progressive development of science and philosophy."[1]

The intuitive method is based on a negative view of the validity of intelligence outside a strictly limited domain. The limitations of intelligence are inherent in its nature; no extension of its categories will or can remove them. Intelligence is constructed with a view to action on inert matter; it is, indeed, spirit insinuating itself into matter. That is its sphere, and any extension of its use is illegitimate. Bergson is emphatic about this. "The intelligence is not made to think *evolution,* in the proper meaning of the word, that is,

[1] *E.C.* p. 217 (Eng. Tr. p. 210).

the continuity of a change which is pure movement." [1] It cannot possibly grasp it, for life, the psychical force at the heart of the universe, overflows intelligence. Intelligence is, as we shall see, the materialization of that force, and one might as well seek to reconstruct a living body by piecing together its dismembered parts as attempt to reconstruct living reality with the spatialized concepts which materialized spirit can furnish. "Created by life, in determined circumstances, to act upon determined things, how could it embrace life, of which it is only an emanation or an aspect? Deposited by the evolutionary movement in the course of its way, how could it comprehend that movement? One might as well claim that the part equals the whole, that the effect can re-absorb its cause, or that the shingle left upon the sea-shore outlines the form of the wave which carried it there." [1] "When it is a question of treating the life of the body or that of the mind, intelligence proceeds with the rigour, the inflexibility, the brutality of an instrument which was not designed for such a use." [2] At a later stage it will be our duty to follow Bergson in his attempts to show how intelligence has been deposited by spirit. For the present it is sufficient to observe that spirit has developed in two diverging directions. At the end of one of these stands man, the intelligent creature *par excellence*; at the end of the other are the insects, which are possessed most perfectly of instinct. In order to become intelligence, spirit had to let go, almost entirely, parts of its nature; consequently, intellect is not able to grasp spirit as a whole, or even that which is its unique characteristic.

This metaphysical account of the inherent limitations of intellect is confirmed when we consider its actual achievements. In philosophy it is seen making its

[1] *E.C.* Introd. p. ii. [2] *Ibid.* p. 179 (Eng. Tr. p. 173).

most perfect flights in Greek speculation, and in a concise review of the course of ancient philosophy, Bergson seeks to show that "the main lines of the doctrine which was developed from Plato to Plotinus, passing through Aristotle (and even, in a certain measure, through the Stoics), have nothing accidental, nothing contingent, nothing which one must needs consider a philosopher's fancy. They delineate the vision which a systematic intelligence obtains of the universal becoming when regarding it by means of views, taken at intervals, of its flowing. So that to-day we shall philosophize in the manner of the Greeks, we shall re-discover, without needing to know them, such and such of their general conclusions, in the exact proportion in which we trust the cinematographic instincts of our thought."[1] Bergson emphasizes that aspect of Greek philosophy in which the tendency is manifest to make the universal the real, and he finds at the foundation of the ancient systems of thought the postulate that there is more in the immobile than in the moving, more in permanence than in change, and that the passage from immutability to becoming is by way of diminution or attenuation of being. "The 'forms' are the constitutive elements of change; they represent what is positive in becoming. Eternity no longer hovers over time as an abstraction; it underlies time as a reality."[2] These "forms" dwell in inexorable steadfastness, free from limits of time and place. Such was the conclusion to which the Greeks were driven. Aristotle, for example, proceeding according to the principle that movement is due to a degradation of the immutable, had to postulate, somewhere, in order to account for the movement in the sensible world, "realized immutability," which he found in his "Form

[1] *E.C.* p. 341 (Eng. Tr. p. 333). [2] *Ibid.* p. 343 (*Ibid.* p. 335).

of Forms," "Idea of Ideas," "Thought of Thoughts." In order to pass thence to the changing world of sense-perception, it was necessary to suppose matter—the Platonic "non-being." This was somehow *added* to the stable reality in order to produce change. It was "a metaphysical zero which, joined to the Idea, like the arithmetical zero to unity, multiplied it in space and time." But the natural consummation of Greek philosophy was achieved in the changeless "one" or "being" of Plotinus. The conclusion which emerges from consideration of this fact is that intellect is dominated by the principle of identity.

Similarly, an investigation of the conquests of modern science reveals, Bergson argues, the inherent inability of intelligence to grasp the nature of anything other than the mechanical and static. He recognizes that modern science has attempted to take account of change and time; great transformations have taken place in modern geometry by the introduction of movement and time into the consideration of figures, for example. Indeed it may be said in general that "modern science is to be defined primarily by its aspiration to take time as an independent variable." But when we ask,—"What is the nature of this time?" we discover that it is time emptied of all its movement or change, of all that which is *fluent* in it. Modern science considers always only "moments, virtual stoppages—in short, only immobilities." It is at the best abstract time of which it takes account, and such time is nothing more than a fourth dimension of space; consequently modern science deals, still, only with the spatial, the static. "It confines itself to counting simultaneities between the events constitutive of time and the positions of a mobile, *T*, on its trajectory. It detaches these events from the whole which assumes

at each instant a new form and which communicates to them something of its novelty. It considers them in the abstract state, such as they would be if separated from the living whole, that is to say, in a time spread out in space." This is not accidental; it is due to the inherent nature of intelligence as a faculty of action, which must isolate and predict—which, indeed, must isolate and eliminate differences *in order* to predict. Here again, then, the domination of the principle of identity is evident.

Besides intelligence, however, there is instinct. Unconscious instinct is sympathetic *action*; conscious, purified, extended instinct is sympathetic *insight*. It is "deep calling unto deep." We men, though our mental outfit is primarily an intellect, carry with us something of this other element, instinct, with which intelligence was fused in the original generative force of all life. Not in entire forgetfulness have we come; intelligence has not separated itself absolutely from instinct. As intelligences we have travelled away from our home in an attempt to gain the victory over matter, and we remember scarcely anything of the land from which we have come. But this same intelligence, coincidently with its conflict with matter, has gained a light—the light of consciousness—which will illumine that country if only we can get back again. And we *may* return, since we are not irretrievably cut off; we possess, in addition to intelligence, immature instincts which, at intervals, reveal their presence. For example, the aesthetic faculty signifies the presence of an instinct by means of which, transcending intellect, we gain, immediately, by an act of sympathy akin to the instinct of the insect, an interior view of reality—a knowledge no longer formal and superficial but full and internal. "It is true that this aesthetic intuition grasps only the

individual. But we may conceive an enquiry turned in the same direction as art, which would take for its object life in general. . . . Certainly this philosophy will never obtain a knowledge of its object comparable to that which science gains of the material world. Intelligence remains the luminous nucleus round which instinct, even when amplified and purified into intuition, forms only a vague nebulosity."[1] The task of philosophy is to develop this faculty by successive efforts. The philosopher who is to contribute anything to our knowledge of life must use this method. He must break the spell of matter, resist its hypnotizing power, withdraw within himself, feel himself living, and by acts of sympathetic insight, gain fleeting visions of the internal movements of the universe.

We are now in a position to examine more closely the nature of the intuitive method. One point must be insisted upon. Bergson has no desire to oppose intelligence to intuition with a view to the disparagement of the former faculty. In fact, he claims to rid knowledge acquired by intelligence of the relativism with which it has again and again been charged. He has no desire, at any rate, to encourage intellectual scepticism. Intelligence does tend to give us a knowledge of absolute reality, but its range is limited. Intelligence and intuition are *complementary* the one of the other, when each is confined to its own sphere. It is true that they move in directions the inverse of each other, but reality displays just such opposing movements, and, so long as intelligence is content to confine itself to following the movement towards materiality, its knowledge, though incomplete, is not relative. In fact, as we have already noted, Bergson wishes to break down the barrier raised by Kant between "phenomenal" and

[1] *E. C.* p. 192 (Eng. Tr. p. 186).

"metaphysical" knowledge; his aim is to bring about an agreement between science and metaphysic without compromising either. "The realities of 'metaphysical' order are not," he says, "transcendent to the world of 'phenomena.' They are internal to the phenomenal life (*i.e.* the physiological or organic life), although limited by it."[1] Kant had illegitimately introduced an extra-intellectual element into his explanation of knowledge. As extra-intellectual, it was unknowable in itself. Now Bergson holds that reality may be extra-intellectual, that is to say, either infra-conceptual or supra-conceptual, and yet knowable. We may instal ourselves in this extra-intellectual real by an effort of intuition. If this be possible, metaphysic and science, though still two opposed ways of knowing, will be complementary of each other. The one will be increasingly dominated by the law of identity; it will proceed by means of concepts, in which space is always immanent; it will involve a distinction between the knower and the known. The other will be dynamic, by immediate intuition, in which the distinction between the knower and the known is removed or has not yet emerged; in which the act of knowledge coincides with the generative act of reality. "Science and metaphysic are re-united in the intuition. A truly intuitive philosophy would realize this so much desired union. At the same time as it constituted metaphysic a positive (*i.e.* progressive and indefinitely perfectible) science, it would lead the sciences specifically called positive to become aware of their true range, which is often greater than scientists themselves imagine."[2]

It is just here that Bergson disclaims all alliance with or kinship to the mystics in their reaction against

[1] "Le parallélisme psycho-physique et la Meta. positive," p. 63.
[2] *I.M.* pp. 71-2.

positive science. "The doctrine which I hold," he says, "is throughout a protest against mysticism, since it proposes to reconstruct the bridge (broken since Kant) between metaphysic and science."[1] Nevertheless, he holds that if by mysticism one understands "a certain appeal to the inner and profound life," his philosophy is mystic, as all philosophy must needs be. But the reality to which he rises or descends in his intuitive efforts is not more abstract than that from which he sets out. It is more concrete, and intelligible reality is immanent in it.

Scientists sometimes rise above their method. Indeed in every case of great scientific advance that is just what happens. The fruitful ideas of science are due to an intuitive metaphysical effort in which the scientist or philosopher has, by a flash of genius, been able to transport himself to the heart of reality, round which he had hitherto been hovering, penetrate to its depths, and like the poet "quaff the live current." At that moment he transcends intelligence. Immediately, however, the idea is immobilized in concepts, and the attempt initiated to express the reality in fixed terms. Every science has, ultimately, its basis of intuition, which has been elaborated, in a sense degraded, by dialectic or logical process, and *the* great aim of the philosopher is to mount the slope down which science has travelled in its immobilizing, that is, its intelligizing of the moving real, and by a violent reversal of the procedure of science to instal himself once more in this reality and feel the original impulsion at its source—an extremely difficult operation, in which the mind "does violence to itself," entirely reversing the manner in which it habitually thinks. Divesting itself of all the categories which are so many nets in which to imprison,

[1] "Le parallélisme psycho-physique et la Meta. positive," p. 64.

immobilize, and intelligize living reality, it will *see* reality, form, if any, "fluid" concepts which will differ for each tendency or qualitative shade exhibited by reality, and which will remain for ever inexpressible in speech or image or fixed concept. It will thus attain to disinterested, immediate knowledge—"immediate" in the sense in which Bergson uses the word in the title of his book, *The Immediate Data of Consciousness*, that is, knowledge "emptied of all which does not come from the object itself and, consequently, infallible and perfect."[1] It is the perception of reality, "as it would perceive itself if its apperception and its existence exactly coincided." It is consciousness illuminating the throbbing heart of reality, but in no sense interfering with or influencing it. With Wordsworth we feel

> "A sense sublime
> Of something far more deeply interfused,
> Whose dwelling is the light of setting suns,
> And the round ocean and the living air,
> And the blue sky, and in the mind of man:
> A motion and a spirit that impels
> All thinking things, all objects of all thought,
> And rolls through all things."

Science is this metaphysical intuition in logical dress. Philosophy must remove the dress, lay bare the intuition.

All knowledge, it may be admitted, implies a species of "sympathetic insight." The scientist, for example, seeks to tune himself as much as possible into harmony with his object. He desires to eliminate, so far as he can, the subjective factor. He approximates, as nearly as is practicable, to a "mere" intelligence. Practical considerations may have influenced him in the under-

[1] "Vocabulaire philosophique" (*Bull. de la Soc. fran. de Phil.*, Août 1908), p. 332.

taking of his task, a glow of enthusiasm appears again and again as he finds nature yielding up her secrets to him; but these are sternly put out of mind in the actual pursuit of his object, *quâ* scientist. This sympathy, however, is usually regarded as a condition, a necessary presupposition, of insight. Insight is the important thing when it is *knowledge* of the object that is in question. Bergson appears to lay the greatest stress on the effort of sympathy, the intellectual expansion which conditions the insight, the subjective functioning which, accordingly as it is at a higher or lower degree of tension, coincides with some one or other of the rhythms of the reality in which we are immersed. A first effort of dilatation or concentration of the self is necessary for an insight into each different qualitative tendency, or rhythm, of reality. This is what Bergson means when he says that we must form "fluid concepts, capable of following reality in all its sinuosities." What he has in mind is the awareness of the effort of expansion or tension necessary for sympathy with one or other of the aspects of reality. In this effort we ourselves are performing a pre-logical, if not alogical, movement which has its counterpart, and which we feel has its counterpart, in reality. Our act of spirit coincides with the creative activity in the universe. The intuition, then, is awareness of this activity of the self, *plus*, necessarily, the awareness of something which is not ourselves which has the same rhythm or movement, the same degree of tension, the same perfection of interpenetration of parts as we. Or more accurately, perhaps, there is the feeling of a movement, originally in the self, no longer, however, regarded as a movement of the self, but simply as a *real* movement. The subjective factor has disappeared; the distinction between subject and object has vanished; life, in that moment,

the life of the whole in one of its movements, is felt, as it proceeds to new creation.

The position of Hegel is immediately suggested to one's mind. He, in his *Logic* reaches the conception of perfected knowledge as that in which the difference between subject and object disappears. "If we suppose cognition and volition, as finite activities, to have done their work, then the matter, which at first has the appearance of being extraneously received, will have been thoroughly intelligized and reduced to law; while on the other hand, through volition, it will have become, in all its parts, the vehicle or expression of rational ends. In that case, it may be argued, the self-conscious knower would recognise in the object nothing foreign, but only, as it were, the realization of his own personality."[1] But while for Hegel this ideal was capable of realization through the perfect synthesis of intellectual knowledge, for Bergson, though there is much in his work which brings him into line with Hegel at this point, the intuition is attainable only by undoing what intelligence has performed. His thought, generally, exhibits a closer affinity to that of Schopenhauer, who says that all great scientific discoveries are works of "immediate apprehension by the understanding." Each one of them is "an immediate intuition and, as such, the work of an instant, an *aperçu*, a flash of insight. It is not the result of a process of abstract reasoning, which only serves to make the immediate knowledge of the understanding permanent for thought by bringing it under abstract concepts, that is, it makes knowledge distinct, it puts us in a position to impart it and explain it to others."[2] It may be noted, however, that while

[1] *Hegelianism and Personality* (A. S. Pringle-Pattison), p. 99.

[2] *Die Welt als Will und Vorstellung* (Schopenhauer, Trs. R. B. Haldane and Kemp), pp. 26 and 27.

Schopenhauer lays stress on the insight, Bergson emphasizes, as we have seen, the sympathetic effort which conditions the insight. Nevertheless, both are equally emphatic in insisting that intuitive insight is not gained by a synthesis or *resumé* of conceptual knowledge; nor is it achieved by perfecting such knowledge. Bergson is never tired of reiterating that we can pass from intuition to conceptual knowledge, but not from conceptual knowledge to intuition. The metaphysical intuition which is at the basis of every science, from which, indeed, the science has arisen, must be released from the trammels of concepts. The movement of mind which was necessary in order that the scientific genius might adopt the life of that which he studied must be immediately grasped, for in that moment, he was *living* the activity of his object. The intuition is to be found, then, at the beginning, and not at the end, of the process of scientific analysis. It constitutes the basis of the science. Analysis, refraction, elimination of the qualitative, begin when the genius himself and the lesser men, his disciples, elaborate it in fixed concepts. "The simple act which has set analysis in motion, and dissimulates itself behind analysis, emanates from a faculty quite other than that of analysis."[1] In passages such as this, which are very numerous, the underlying thought is that intelligence is bare identity.

There is, however, a sense in which the intuition may be said to be arrived at *after* analysis. "One does not obtain from reality an intuition, that is, an intellectual sympathy with its more secret parts, unless its confidence has been gained by a long comradeship with its superficial manifestations."[2] But Bergson does not admit, in this metaphor, that we have just to continue the processes of logical synthesis, in order to gain an

[1] *I.M.* [2] *Ibid.*

intuition. Such an admission would certainly clash with the principle that intelligence is identity. But Bergson proceeds to say: "It is a question of disengaging the raw materiality of the known facts," and this is not possible except by an expansion of mind akin to that of the mind of the scientific genius who laid the foundation of the science. "The metaphysical intuition, although one can reach it only by means of material knowledge, is quite different from the *resumé* or synthesis of such knowledge." [1]

The movement of mind which Bergson calls intuition is an activity prior to or subsequent to what is usually called knowledge. From one point of view it is that out of which knowledge comes, from another point of view it is that into which knowledge goes. In either case knowledge, in the ordinary sense, vanishes. Metaphysical knowledge consists in a series of actions, in which we *live* the life of the universe in its various rhythms. We *are* for the instant that which we know. Conceptual representations are the outcome of our attempt to translate this life in fixed symbols. The psychical activity which is apprehended in metaphysical knowledge is the ultimate subject of all predication, but every predication made of it is symbolic. It is itself simple and indivisible.

Finally, you do not exhaust the nature of reality in one single effort of intuition. You do not, like the mystic in his highest flight of ecstasy, gain in one flash of insight "the eternal wisdom which abides above all." In each effort of intuition the philosopher sympathizes with reality in only one of its rhythms. Then metaphysic becomes a progressive science, empirical and positive, not completed by any one thinker, however great his genius or untiring his labour. The effort

[1] *I.M.*

demanded is extremely difficult, and it cannot be sustained for more than an instant, but it "nevertheless pierces the obscurity of the night in which intelligence leaves us" with regard to the subjects which have supremely vital importance for us, our personality, our freedom, our origin, and our destiny. When it has been achieved it is impossible to express it fully in concepts or in words, or even to express it at all. Any attempt to do so will result in eviscerating it of some of its meaning. Thus in Bergson's pages we shall find images piled upon images, metaphors innumerable, all the resources of a charmingly flexible literary style and a vivid, fertile imagination brought into requisition. Edward Caird wrote of Plotinus: "The inmost experience of our being is an experience which can never be uttered. To this difficulty Plotinus returns again and again, from new points of view, as if driven by the presence of a consciousness which masters him, which, by its very nature, can never get itself uttered, but which he cannot help striving to utter. He pursues it with all the weapons of a subtle dialectic, endeavouring to find some distinction which will fix it for his readers, and he is endlessly fertile in metaphors and symbols by which he seeks to flash some new light upon it. Yet in all this struggle and almost agony of his expression he is well aware that he can never find the last conclusive word for it, and he has to fall back on the thought that it is unspeakable, and that his words can only stimulate the hearer to make the experience for himself."[1] Substitute the name of Bergson for that of Plotinus in this deliverance, and we have an accurate description of his brilliant, untiring, yet futile efforts to limn for his readers the nature of the intuition.

[1] *Evolution of Theology in the Greek Philosophers* (Ed. Caird), Vol. ii. p. 226.

PART I

EXPOSITION

CHAPTER I

THE INTUITION OF PURE DURATION IN THE LIFE OF THE SELF AND ITS SPATIALIZATION IN THE INTELLIGENT CONSCIOUSNESS

BERGSON'S first application of his method is of supreme importance, for it is scarcely saying too much to affirm that all his later productions simply develop thoughts which are contained in germ in the arguments and efforts of imagination by which he seeks to arrive at an intuition of the fundamental psychical life of the self. Further, in the fulfilment of his task here he follows a course of procedure which is frequently repeated throughout his philosophy. He takes a well-defined philosophic concept which has been formulated by the traditional philosophy, developed hitherto by men who were primarily mathematicians; he subjects this concept to a searching critical analysis, and gradually, under his skilful touch, we see the sharp contours disappear, and the concept lose itself in a "fugitive and fluent" reality. With the melting away of the clearly-defined concept the antinomies which its introduction into speculative thinking has brought about vanish too; for immediate intuition, in which reality is grasped as it is for itself, carries us beyond that level on which alone concepts have any right to exist. Consequently the antinomies are resolved, for the problem, growing as it does out

of the concept, loses all meaning when the concept disappears.

The concept which is first submitted to this process of analysis is that of time. The negative result reached is that time is not a conception which can stand alone. It is fundamentally identical with space, and though it is differentiated from space, that differentiation is capable of explanation. The positive outcome of the discussion is that something psychical, which Bergson terms duration, is substituted for time as it is represented in the concept under investigation.

The concept of time with which Bergson is here dealing is that which is to be found in mathematics and the mechanical sciences. It has been thus described by Newton: "Absolute, true, and mathematical time, in itself, and from its own nature, flows equally, without relation to anything external. The flow of absolute time cannot change.... Duration... remains the same, whether motions are swift or slow or none at all." Time is conceived as infinite, homogeneous, of one dimension, continuous and irreversible. Bergson lays particular stress upon its homogeneity and its continuity. It is an empty, qualityless or indifferent, homogeneous medium in which points are distinguished as "now" and "not-now," as successive, or as first, second, third, etc., and this homogeneous medium is distinguished from space, another qualityless, infinite, and infinitely divisible medium, homogeneous in all its parts, in which points are distinguished as "here" and "not-here," as simultaneous, or as co-existing in one moment of time.

Is time, as conceived in mechanics, essentially different from the conception of homogeneous space? Bergson thinks that it is not. He ranges himself alongside those philosophers who have held that the idea of number presupposes the intuition of space.

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The idea of number, he argues, even of abstract number, implies the simple intuition of a multiplicity of parts or units exactly similar to each other, and yet distinct from each other. These must all, at first, be grasped as side by side, and then, by a synthesizing act of mind, added together. It is in space that this juxtaposition of units takes place. All explicit counting, presumably whether it be numeral or ordinal, involves the holding of a number of exactly similar units in one moment, in a "now," before the mind—*i.e.* it involves the idea of space. But time, as it is represented by the reflective consciousness, is a medium in which events, and more particularly our conscious states, form a discrete series which admits of being counted. Consequently, if the presupposition from which Bergson sets out be correct, that is, if the possibility of counting rests upon an intuition of space, either time as represented in mathematics and the mathematical sciences is fundamentally identical with space, or it must be admitted that there are two forms of homogeneous medium which can yet be distinguished from each other—one medium in which the numerable contents are regarded as co-existing, and a second, in which the contents are regarded as following one another. Since homogeneity means for Bergson "the absence of every quality," it follows that the second alternative must be rejected, and we are forced to the conclusion that time and space, in so far as they are homogeneous, must be regarded as identical. If this be so, then one of these conceived media must be derived from the other. Either time is space with an addition introduced from some other quarter, or space is simply time with an element omitted. Possibly these alternatives are not mutually exclusive.

Mill, Bain, and others sought to derive the idea of

infinite space from the experience of series of motor sensations in time. Bergson clearly exposes the futility of such an attempt, and he boldly propounds the inverse theory that the concept of time which appears in mechanics has as its fundamental basis the idea of space. "Now," he says, "(mutual) externality is the distinguishing mark of things which occupy space, while states of consciousness are not essentially external to one another, and become so only by being spread out in time regarded as a homogeneous medium. If, then, one of these two supposed forms of the homogeneous, viz. time and space, is derived from the other, we can surmise, *a priori*, that the idea of space is the fundamental datum."[1] However, upon such a vital question more certainty is required than that which is afforded by an *a priori* surmise. If time is an impure concept, one element of which is space, and the other an element introduced from another part of our experience, the source of this intrusive factor must be clearly shown, and the fact of its mingling with the pure concept adequately accounted for. Even in mechanics, although the homogeneity of mathematical space and mathematical time is not only admitted, but also maintained, these two conceptions are distinguished from one another, and if such distinction is asserted to be erroneous and groundless, the assertion must receive full and complete substantiation. Bergson is prepared to meet this demand.

It is of the utmost importance for the understanding of Bergson's philosophy to grasp the implications contained in the immediately subsequent line of thought. Put very simply, his argument concerning the relation between the conception of time and that of space involves the supposition that the only valid conceptions

[1] *Essai*, p. 75; (Eng. Tr. p. 99).

are quantitative. Since time, *quantitatively* conceived, is identical with the conception of space, *no* peculiar conception of time is possible. That is to say, intelligence is capable, fundamentally, only of quantitative or mechanical conceptions; and if a non-quantitative or non-mechanical reality is to be apprehended, that can be accomplished only by a faculty other than intelligence. This is the key to Bergson's philosophy.

He does not encounter great difficulty in showing that any attempt to measure time quantitatively involves the discarding of the succession which is specifically its time aspect, and the consequent projection of time into space, in which the contents cease to present themselves as successive, and are apprehended simply as co-existing. Any quantitative measurement of time must be indirect, for all measurement of this kind is possible only if two points, originally a "before" and an "after," are held *simultaneously* before the mind. It is clear that they are then no longer apprehended as "before" and "after," but as co-existent—*i.e.* they are spatially conceived. Bergson, at this stage in his thought, appears to regard the material world as a reality which, in so far as material, exists in a present which is ever renewed, as identical, in fact, with Descartes' *res extensa*. Consequently, any direct knowledge of it to which we may attain will consist in the apprehension of co-existing, mutually external objects. Quantitative measurement is directly applicable to this spatial reality alone. Further, if experience were confined most stringently to knowledge of such a static, indifferent space, it is difficult indeed to see how the knowledge of succession, the differentiating characteristic of time, would ever arise, and, therefore, how the idea of time itself could possibly enter into experience. Our knowledge, if we

had any, would be exhausted in a series of quantitative conceptions, the basis of all being the conception of space. The conclusion to which this points is that, if a notion of time in which the idea of succession is an essential element does form part of our experience, that element must have been acquired in some other department of experience than in our perception of the external world which exists in an everlasting now.

If the conception of time as a homogeneous medium which can be differentiated from space is an impure one; if it issues from the incursion of an entirely foreign reality into space, or, conversely, from the intrusion of space into this reality, then the question at once arises—In what direction are we to seek this entirely non-spatial reality? Bergson's unhesitating reply is that the inner psychical life alone will furnish the type of such a reality. The nature and progress of time are revealed, if anywhere, in the ambulations of the purely spiritual force which lies at the heart of all life. Can this force enter within the bounds of knowledge?

Bergson's contention is that it can be grasped, though by neither psychological investigation nor philosophic reflection. The chief method of the empirical psychologist is that of introspection. All introspection, however, is retrospective. This old objection assumes a new aspect in Bergson's formulation of it. He does not argue that because introspection is, and must be, retrospective, a psychology of the self is therefore impossible. Psychology has its own domain, and its conclusions are to be accepted as true and valuable within that domain. Psychology of introspection is possible, because the self does not live a continuously free life. As it is obstructed by matter, it is forced repeatedly to cease its forward progress and literally reflect upon itself. The full significance of

this position cannot be grasped until the nature of the deeper self has been adequately set forth. Let a very general statement suffice for the present. Bergson makes a radical distinction between what we might call the empirical or psychological personality of individual men and the metaphysical reality which is the spiritual basis of all conscious life, but which is itself super-personal. A similar distinction will be found in Hermann Graf von Keyserling's recent work, *Unsterblichkeit.* In our most fundamental nature we are not identical with our "personality," but with a supra-individual synthesis, which is the basis of the moral consciousness. The empirical, and even the reflective, personality is a means to an end, and a means which disappears when the end is achieved. Bergson's theory is that this supra-individual psychical reality has, in its opposition to matter, organized a body, that the body so organized reacts upon the constructing force, and that an individual, empirical, reflective personality is produced through this interaction—a personality which owes its origin to a partial materialization of spirit in the interests of biological and sociological utility. The psychology of introspection has as its subject-matter the "states" of the reflective or (what is, for Bergson, the same thing) spatialized self. There *is* such a self, and empirical psychology has an important task in investigating and classifying its aspects. But when this science steps beyond its limits and claims to be able exhaustively to represent the nature of the progressive, "living" self, its pretended explanations are illusory. It seeks to reconstruct a living force, that living force which carries the self to decision after decision, by means of states which are more or less the negation of it, an attempt which is doomed to failure from the outset.

In the second place, the reality of which Bergson is in pursuit evades all attempts to imprison it in any one or in all of the concepts which reflection may summon to its aid. Reflective knowledge can be purchased only at the cost of a greater or less interruption of the central energizing of the innermost self, so that in the very effort which he makes to grasp his inner life the reflective philosopher actually destroys that which he seeks to know. It is consequently with the interrupted, spatialized self that reflection is condemned to deal. All the categories, or fundamental principles of knowledge, which Kant and those who have developed his method have laid bare, have to do with this spatialized self. They entirely fail to give any insight into the nature of the soul as a living, choosing, progressing, creative reality. They are arrived at by a dissecting process which murders in the very act of dissection.

The most important feature of the era of modern philosophy initiated by Descartes is the use of the principle of self-consciousness in all attempts at philosophic construction. But it has recently been questioned in many quarters whether, by the emphasis which he laid on the *cogito* of his principle, Descartes has not caused the mere thinking aspect of self-consciousness to assume undue prominence in the minds of modern philosophers. The demand has, indeed, been made that the *activity* of the subject, or, rather, the immediate, indubitable awareness of that activity, should be recognized as the ultimate starting-point. In the great majority of cases, however, those who make this demand are content to take the activity of thought—rational thought—as a basis from which to construct, and they have emphasized the value of reflection as a means of revealing the nature of that activity.

Bergson, however, goes much further. An immediate grasp of the activity of intelligence or reason and its reflective representation will not meet his demands. He desires to show the driving or motor power which makes any activity possible and real,—that which makes reality go, the inner urgency which impels us forward, which uses intelligence as a means towards fuller, less restricted life. He is not thinking of Lotze's "unconscious psychical mechanism," not of the passage of mind from premisses to conclusion, or from particular fact to general law. However paradoxical it may sound, Bergson argues that these processes of deduction and induction, far from constituting the fundamental activity of the self, are due to a temporary interruption or negation of that activity. The activity which he has in view lies beyond the reach of intellect, for intellect is but a means which it uses for its ends. Intuition alone can unlock its secrets.

By an effort of deep introspection, an act of violent abstraction, in which thought, as that process is usually understood, is transcended, we must live our innermost life, and feel ourselves doing so. It is only in the rare and critical moments of free decision that our soul achieves its truly spiritual activity, and it is consequently only at such moments that opportunities for the application to the self of the method of intuition arise. Even when such opportunities occur, it is not everyone who can perform the act of deep introspection necessary for the apprehension of this almost intangible, fleeting reality. A long period of special training must first be undergone if consciousness is to assume the "unique and well-determined attitude" which it must adopt if it is "to appear to itself without a veil." This attitude is one of extreme abstraction from all that is external to the spirit itself, of attention

concentrated inwards. Further, "the definite effort of distinct intuition in which we apprehend the 'ego' would be impossible to any one who had not arranged and combined or fused together a very great number of psychological analyses."

When one succeeds in making this descent into one's own psychical life, one finds that the boundaries of "states" gradually melt away, the multiplicity of definitely outlined feelings, volitions, images becomes less definite, less a multiplicity. An examination of the idea of intensity of mental states leads to the conclusion that such intensity cannot be measured in terms of quantity. It is not denied that the term is applicable to these states, but it is contended that to speak of one psychical state as more intense than another, in any quantitative way, is erroneous. The thesis is presented, and supported, that the changes which take place in individual or isolated states of mind, as well as those which occur in the concrete multiplicity of mental life, are qualitative. The perception of the intensity of those states which appear to be self-sufficient, *i.e.* those which do not demand attention to any external object, consists in the "larger or smaller number of simple psychic phenomena which we conjecture to be involved in the fundamental state; it is a *confused* perception"—the feeling of a multiplicity of elements, confusedly distinguished. The perception of the intensity of those states which represent an external cause, as, *e.g.*, sensations considered in their cognitive aspect, consists in "a certain estimate of the magnitude of the cause by means of a certain quality in the effect—it is, as the Scottish philosophers say, an acquired perception." This preliminary investigation prepares the way for the comprehension of the nature of the *ego* as it presents itself in intuition. There is

here foreshadowed the idea of a multiplicity of elements which are yet not a multiplicity, in the ordinary sense of the word. The multiplicity is, rather, an inferred one: what is directly perceived is a mass which is felt to change qualitatively. As the philosopher withdraws into the depths of his own mind he becomes aware that the states which, as a psychologist, he had isolated, lose their appearance of disconnectedness, and interpenetrate, like the different members of an organism. When he feels the inner activity on occasion of a free decision, the interpenetration is complete. There is no longer a multiplicity of juxtaposed states; there is, rather, a growing organism, in which all the tendencies are perfectly unified in a forward movement. The spiritual content or substance is seen to be a confused multiplicity of tendencies, a fluid mass of memories and feelings integrated by a conative *élan*. These tendencies are such that any one of them represents the whole personality. They suggest the thought of the monads of Leibnitz, but they are never fixed—they are pure fluidity and mobility. They are much more supple than images. Always on the point of being realized in a clearly-defined image, they yet remain completely distinct from this image. They cannot be said to constitute a multiplicity in the sense in which distinctly outlined, isolated, persisting, material objects are numerable; the mass "contains number only potentially." In an organism, for example, there is a potential multiplicity of parts, but *quâ* organism this is a multiplicity in unity, and from this higher point of view the idea of space necessary for counting is not applicable at all to the organism. Similarly, the continuous life of a person approximates to such a multiplicity in unity. The life passes progressively through various phases, but these are all phases of a

conatively unified whole. They may be counted symbolically by the introduction of space into a non-spatial reality. The progress of the innermost spiritual life is the most perfect example of such a potential multiplicity. Here consciousness immediately detects changes, makes qualitative discriminations, without any further thought of *counting* the changes or qualities. It feels these differences, but the basis of comparison, so to speak, is qualitative rather than spatial. The difference is not between a "here" and a "not-here." It is the qualitative change of a "this" becoming something else. It is a felt difference, and the awareness of it does not go beyond the stage of feeling. It is necessary to bear in mind that the philosopher is supposed to have transcended here the stage of thought at which the living personality is conceived as a rationally conative synthesis, the nature of which emerges through reflection. Synthetic unity of apperception, principle of consciousness, unity, one in many—each of these and all together are left behind as merely provisional, symbolic, practical, and utterly inadequate reconstructions of the reality, reconstructions based upon an inexhaustive and inexhaustible series of ineffectual turnings about a reality whose nature can be grasped only by entering into it,—a reality which "overflows and surrounds" all the concepts of logic. Indeed, instead of helping us to an insight into the nature of the spiritual life, these reflective constructions, in James' phrase, "negate the inwardness of reality altogether"; they have no point of contact with "the inner *doing*" of the self, which, when we enter into it and feel its life, "buds and bourgeons, changes and creates." There is nothing quantitative or spatial in it, consequently it lies entirely beyond the grasp of intelligence.

Further consideration of the inter-penetrating

tendencies which are fused together in this spiritual content may throw some light upon its nature. They are termed in another connection "pure memories," and, in a third, "ideas." They are the epitomized form in which all our past experiences, all that we have thought, willed, and felt, exist in the depths of memory, and are carried forward to meet and mingle with the fresh experiences which arise. These pure memories are not, according to Bergson, hypothetical constructions which are arrived at by thinking away the permanent characteristics of images so completely that the characteristic of change alone remains. They fall within the bounds of experience. In an essay entitled *L'Effort Intellectuel*, Bergson attempts to show that it is possible to enter into the psychical life prior to its direction towards external action, to instal oneself in the "pure" memory, and pass thence, step by step, to the precipitation of this "pure" memory into images, and to its subsequent externalization in action. In this intimate experience the "pure" memory is really perceived as an existence, "fleeting, it is true, the essential characteristic of which is that it cannot be fixed under the regard of consciousness nor translated into definite and precise terms, for it is pure fluidity and mobility." But the very isolation, for a passing glance, of one of these tendencies, implies an incipient spatialization, and in the free decision, when the spirit lives its unhindered life, these tendencies have all so penetrated that there is not any consciousness of this or that tendency, but a feeling of pure becoming in which all the tendencies have merged into one another in one great impulsion towards the creation of something absolutely new.

Whenever spirit comes to its own such unification of tendencies occurs, and the present which is generated

from the whole of the past inherits it all, while at the same time something entirely new is elaborated. It is just this pushing of the past into the present which constitutes the continuity of the life of the inner self. The past exists in the present, but, in virtue of its very existence there, it is no longer what it was. This is the extreme antithesis of a mechanical view of reality, according to which the past and the future should be explainable in terms of the present. In the process of maturation which constitutes the spiritual life nothing ever repeats itself. The past which is carried on into the future *was* something; it *is* something else; no element persists identical throughout. Spiritual life means growth, evolution, change; all homogeneity vanishes; a series of absolutely heterogeneous moments remains. Yet there is a *lived* continuity of this inner life, similar to that of a growing organism. Even when one lives the life of reflection there is still a central core, so to speak, or an undercurrent of this purely spiritual life, although parts have dropped off and become materialized into images. So the living continuity is preserved, and the intuition is the immediate awareness of this act of continuing.

Since for this spiritual reality existence is identical with growth, continuous elaboration of something not partially but entirely new, it follows that its future is wholly imprevisible. The possibility of prediction lies in the actual persistence in time of identical elements, in the fact of homogeneity. For example, the law of causation has a practical value in enabling us to predict the future only if certain conditions do recur. In the material world this possibility is realized, for the existence of matter, in so far at any rate as it is spatial, means here an ever renewed creation of the present; hence the future is essentially previsible. But in pure

spirit there is an entire absence of homogeneity. Here there can be only *seeing*, which, further, is coincident with living. Consequently, to entertain the possibility of foreseeing here is to contemplate the possibility of living before we live—a sufficient *reductio ad absurdum.*

To sum up: pure spirit reveals itself in immediate knowledge as non-spatial, as entirely disparate from a reality to which number is applicable, and as devoid of all homogeneity. In the fundamental psychical life there is a constant accumulation of the past conserved in memory; the volume of the self—one cannot avoid metaphors here—grows, and we have a feeling *sui generis*, the feeling of a "larger," richer experience, the feeling of the greater weight, so to speak, which memory carries. This feeling may subsequently be interpreted as the feeling of an increased multiplicity of "states," but this is a spatialized interpretation of a fact grasped in its true reality by immediate consciousness. We feel directly growth, organic growth, and the idea of multiplicity would never arise in a consciousness which merely felt itself live the inner life.

Now, it may readily be admitted that our conception of time grows out of the immediate awareness of our own conscious growth, whether, with Bergson, it be contended that the spiritual life is a supra-rational one, or whether the extremely opposite position be assumed that the progress of the mental life is the development of pure reason. It may be granted that a being devoid of memory would have no conception of time, for he would be confined to a "now" ever-renewed, and awareness of "now" alone does not imply consciousness of time. The awareness of spiritual growth may be the germ out of which consciousness of time develops. Finally, it must be

admitted that a, indeed *the*, fundamental feature of time is that when in a time series one "is," all others are not. Either they, as such, exist no longer, or they are not yet. The peculiar characteristic of Bergson's position, however, is that he *identifies* time with this spiritual growth. It is "pure duration." To a person ignorant of space the feeling of evolving experience would be the feeling of pure time. On such a view time becomes identical with spiritual existence. It is the very "stuff" of life. It is "the continuous progress of the past, gnawing at the future, and increasing in bulk as it advances." This same sentence describes the existence of spirit.

It is now possible to see how the impure conception which passes for the conception of time has arisen. A consciousness which maintained itself ever intent on its own internal activity would experience only the pure qualitative succession of duration. Now, although the needs of physiological and social life make this impossible, and although even a fleeting glimpse of the inner life involves a violent effort of abstraction, Bergson's theory demands the presupposition that every mind which arrives at the ordinary conception of time has at least a vague awareness of this pure duration, for the conception of time which he is combating is, I think he would hold, a universal possession of the reflective consciousness, and develops independently within each individual mind. But in addition to this vague awareness of pure "succession without mutual externality," the individual mind must be supposed to be in possession of the idea of space, in which there is "mutual externality of parts without succession," or simultaneity of parts which do not succeed each other. "Here" or "there," isolated points or parts, are simultaneously present in a "now."

The impure conception of time which all minds possess is due to an intermingling of these two extremes. A set of simultaneities, points, or parts, is "contemporaneous" with each "heterogeneous moment" of consciousness; each of these sets is conserved in memory. Next, they are placed side by side as distinct sets, which yet are regarded as constituting a series—*i.e.* they are endowed with an imaginary succession, succession in general, which is borrowed from the awareness which the mind has of its own inner movement or duration. The "successive" element, then, in homogeneous time, considered as a medium in which distinct *external* events occur as a series, is an impure element introduced from pure spirit into pure space. In a parallel way it may be argued that the static element in homogeneous time, considered as a medium in which distinct *internal* states occur as a series, is due to the incursion of space into the domain of pure consciousness. An illustration which Bergson uses may throw some light on this ingenious theory of the vagaries of our faculty of knowledge. When we observe the oscillations of a pendulum, "as the successive phases of our conscious life, although they penetrate one another, correspond each to an oscillation of the pendulum which occurs at the same time as it, and as, moreover, these oscillations are sharply distinguished from one another, we get into the habit of setting up the same distinction between the successive moments of our conscious life. The oscillations of the pendulum break it up, so to speak, into parts external to one another; hence the mistaken idea of a homogeneous inner duration similar to space, the moments of which are identical, and follow without penetrating one another. But, on the other hand, the oscillations of the pendulum, which are distinct only because one has vanished when the other

appears, profit as it were from the influence which they have thus exercised over our conscious life. Owing to the fact that our consciousness has organized them as a whole in memory, they are conserved, then disposed in a series. In short, we create for them a fourth dimension which we call homogeneous time, and which permits the movement of the pendulum, although taking place at one spot, to be indefinitely set in juxtaposition to itself."[1] Time, then, as a concept of the ordinary intelligence, and also as a concept of physics, is a "mongrel" conception born of the unholy union between pure duration and pure space. It bears marks of resemblance to each. From pure duration it has derived the characteristic of succession, and the impress of space upon it is seen in its feature of homogeneity.

The vital presupposition of this argument is that there is an absolute cleavage in reality. The Cartesian *res extensa* and Bergson's pure duration are set over against each other as two forms of reality which have nothing whatever in common. Within the external world there is no real activity, change, or mobility; what we primarily perceive in that world is fixity, immobility, simultaneity of parts. In pure duration, on the contrary, there is nothing but real activity, change, mobility; the primary object of immediate apprehension here is change, movement, pure succession. This is Bergson's standpoint in his earliest work. It is openly dualistic. Such a position, however, raises all the difficulties which confronted Cartesian dualism, and in the progress of Bergson's thought this radical cleavage between the external and the internal world is superseded, dualism giving place to a species of spiritual monism according to which reality and duration are

[1] *Essai*, p. 83 (Eng. Tr. p. 109).

identical, although there is a movement within reality which prevents it from becoming *pure* duration, pure spirit. In the individual mind this retarding movement is reflection; in the universe as a whole it is materiality. The normal, unsophisticated individual mind moves between pure intuition and pure intelligence, and reality as a whole occupies a plane between pure duration and pure matter. If that be so, the supreme difficulty with which Bergson is faced consists not so much in explaining the origin of the idea of time, but in accounting for the universal prevalence of the idea of space in reflective consciousness. Before the process of osmosis can take place the idea of space must be accounted for, but as Bergson's metaphysic of reality develops, it becomes increasingly difficult to see how the conception of space becomes a possession of the mind at all. This difficulty will have to be considered at a later stage. It must be noted here, however, because, probably under the stress of this difficulty, Bergson ceases in his later productions to refer to the strange theory just elaborated of the filtering through of space into time, and connects the development of the idea of homogeneous time more directly with the utilitarian function of intelligence. In this latter case he sets out with the postulate of the continuous flow of reality in a manner similar to the movement of our own inner psychical life. Reflective consciousness, by means of memory, "solidifies into sensible qualities" this continuous flow. Sensible qualities, he says, as they are found in our perception (combined, as it always is, with memory), are the successive moments obtained by a solidification of the real. But in order to distinguish these moments, and also to bind them together by a thread which shall be common alike to our existence and to that of things,

we are impelled to imagine an abstract diagrammatic representation of succession in general, a homogeneous and indifferent medium which is to the flow of matter in the sense of length what space is in the sense of breadth. Herein consists homogeneous time. According to this explanation there is no need to appeal to the idea of space for the homogeneous element in the conception of time; space and time develop contemporaneously within the reflective consciousness. On either explanation, however, the concept of time has no knowledge value. In the one case it is an impure concept; in the other it is an illusion to which the intelligence subjects itself in its activity devoted to practical ends—it is a representation which we are "*impelled to imagine.*" Real time is identical with the progress of spirit.

In the foregoing consideration of Bergson's theory of the nature of time, in the course of which it has been necessary to examine the structure of the inner self, the fact has been more than once suggested that a clear distinction is to be drawn between that inner self and the personal or reflective consciousness. This distinction is full of significance, and its clear comprehension is essential to the grasp of Bergson's metaphysic. When it is argued that empirical psychology, and, more generally, reflective thought, is incapable of coming to grips with the living self, it must be borne in mind what that means, and two possible misunderstandings must be avoided. It does not imply that psychology is, as the leaders of the present movement in Oxford against that science contend, to be regarded as a pretender, without title to rank amongst the sciences, nor does it mean that the empirical self is a construction of bad psychology; for there actually is a self the nature of which psychological analysis, together with reflection, is quite capable of investigating. In other words, the

mechanizing and spatialization of spirit are not due, in the first instance, to the fact that men in general have constituted themselves reflective psychologists. It may be, indeed, that the premeditated reflection of the psychologist and the philosopher emphasize, *ipso facto*, this spatialization, but natural retrospection and reflection in the interest of action is the main cause of the precipitation of inner duration into space, since the very act of reflection involves an actual, not a theoretic, interruption of the progress of that inner reality. Men are reflective primarily in the interests of action. They may become avowed psychologists from purely theoretical motives, but as psychologists they merely carry further a method which had its origin in the practical needs of existence, and so they will, by pursuing this method, throw light only on the processes of a self which is turned towards action on matter, and by that very fact more or less mechanized. Man is not pure spirit. He pursues his existence in a spatial world, and the practical necessity of finding his way about in his material environment involves a compromise, temporary at least, between pure spirit and complete mechanism. The normal mental life which psychology and reflection investigate moves between two extreme limits—pure spiritual freedom on the one hand, sheer automatism on the other. This fact cannot be over-emphasized. It is one of the anchor thoughts of Bergson's metaphysic. It may be expressed in another way by saying that life in the body brings limitations to spirit. Our "thought," which is our very substance, is obliged, in the interests of biological needs, to externalize itself in action, and reflective consciousness is an integral part of our present organic life only. It arises when a partial spatialization of duration takes place.

For the better understanding of this fundamental

postulate, it is necessary to consider generally some aspects of Bergson's thought which will require to be dealt with in greater detail at a later stage. In the first place, then, the body (and more particularly the brain) has been organized by cosmic spirit as a means by which it seeks to regain its free unhindered activity, which has been interrupted by matter. Our present life is "a gigantic effort of thought (*i.e.* spirit) to obtain from matter something which matter does not wish to yield to it. Matter is inert; necessity is inherent in it; it proceeds mechanically. It seems as if thought seeks to take advantage of this essential mechanism of matter, and to utilize it for *action*, to convert thus into contingent movements in space and into imprevisible events in time all the creative energy which is present in it—in so far at least as that energy is *actable*, and lends itself to externalization. Cunningly and laboriously spirit accumulates complication upon complication in its attempt to transform necessity into freedom, and so compose a matter so subtle, so mobile, that freedom is enabled to hold itself in equilibrium by a veritable physical paradox and by means of an effort which could be sustained for a moment only on this mobility itself."[1] This return of spirit to its own free life has been achieved, partially at least, by the construction of the human brain, which is a veritable "centre of indetermination." In a quite unorganized material world there would be perfect equilibrium, universal, automatic and equal action and reaction of part with part. But the human body occupies a privileged place in the material world in that it is a kind of telephonic "Central" in which movement is switched off along certain *chosen* lines. By its means the necessity of matter is broken through, and an increasing precision,

[1] *Bulletin de la Soc. Fran. de Phil.*, Jan. 1901, pp. 55 and 56.

variety, independence and efficaciousness secured for the psychical force which is the cause of its organization.

This leads to the second consideration—viz. that consciousness, discernment, is another means which spirit uses in order to secure its own essential progress. Spirit itself is supra-conscious, and matter, it may be said, is infra-conscious. Consciousness is a feature of the middle stage, and is conceived of as vanishing when it has served its purpose in providing a free passage for spiritual activity. In other words, activity is a higher category than consciousness. Bergson thinks it necessary, in any theory of perception, to assume the existence of a material world which exists independently of any individual percipient. The nature of this reality is, he sometimes contends, to be apprehended as a compromise between Descartes' theory, according to which matter is identified with geometrical extension, and Berkeley's contention that *esse est percipii, i.e.* that matter exists only within the mind. In the external world there is throughout action and reaction of part on part, consequently a distinction is necessary between matter and absolutely static geometrical extension. Yet the creation of something new forms no part of the existence of matter. It simply *acts* its past, therefore it must be differentiated from spirit, which issues at every moment in the creation of something absolutely new. Now, within this material reality spirit is immanent. An impersonal, impotent, annulled, potential consciousness is striving within matter itself. If that were not so, matter would dissolve into space as all activity vanished from the material world. As it is, each "image" or part of matter, like the monad of Leibnitz, has an "unconscious" perception of all other images, since the elements of all act and re-act mutually. "Nature might be regarded as a neutralized, and consequently a

latent consciousness, a consciousness of which the eventual manifestations hold each other reciprocally in check, and annul one another precisely at the moment when they might appear."[1] It is similar, that is to say, to the consciousness of an automaton. This position is intelligible only if we bear in mind that spirit, for Bergson, is primarily *activity*. The *conscious* aspect is not fundamental, the active aspect is. Not only so; *all* activity is spiritual. Consequently he feels warranted in speaking of unconscious perception, meaning by that an action. The fact that it is unconscious does not preclude it from being fundamentally a spiritual fact. While perception remains at the unconscious stage, however, spirit is exactly balanced by matter and is able only to maintain itself at equilibrium in automatic and equal action and reaction. It cannot pursue its fundamental activity, which is to break through automatism and attain movement, spontaneous and unforeseen. This, therefore, is possible only if perception can become conscious perception. Such a consummation is reached when, within the aggregate of material images, one image is so cunningly organized that the action received by it from other images does not evoke on its part an automatic and immediate reaction. Instead, certain actions received are reflected, so to speak, upon their source, and the potential action of the body upon this source is outlined there. Contemporaneously, consciousness awakes, and *discerns* this outline of the eventual action of the body upon that part of its material environment. The automatic reaction which is a feature of the material world has been, at a certain point, broken through. At the same time, perception, hitherto unconscious, has become conscious. Consciousness has emerged in the interests of

[1] *M. et M.* p. 228 (Eng. Tr. p. 331).

the activity of spirit, which has to some extent overcome the opposition of matter, in so far as it has constructed a body, and more particularly a brain, which conditions chosen activity. But if chosen activity is to become a fact, the possibilities between which the choice lies must be *discerned*, *i.e.* consciousness must arise.

This consciousness, it is important to observe, is, at the outset, strictly impersonal. Bergson speaks of the aggregate of images as "posited to begin with." If it be asked to whom or to what is this aggregate given, no reply is forthcoming, except that it is given to an impersonal consciousness. Indeed, the fact is emphasized that "pure" perception is "impersonal," and that ordinary perception consists mainly in grafting elements derived from memory (and therefore personal), on to this impersonal basis. Finally, Bergson holds that it is not difficult to trace the process by which consciousness passes from the impersonal to the personal form.

This brings us to a third consideration, viz. that *selves*, individual personalities, are also means to the end of supra-personal spirit. They too are constructions of the middle state. Pure spirit is impersonal, or supra-personal; matter is likewise impersonal—infra-personal, one might say. The ordinary reflective conscious personality occupies a "mean" position. It disappears, at one extreme, in a material reality, for which existence means an ever-renewed present, and at the other in a supra-human spiritual force, which lives its own inherent life of continuous new creation. How, then, does personalization take place? We have seen that a "pure" perception is the outline in matter of our eventual action upon it. At the same time as this practical discernment takes place, two other things happen. In the first place, the perception is reflected in memory. This reflection occurs simultaneously with

the perception, not subsequently to it. The reflected image is thus caught up in the life of spirit, and is dissolved into it, so that it no longer exists as a separate image, but, as such, falls below the level of consciousness. In the second place, contemporaneously with the perception, a reaction on the part of the body commences, a motor response which, in brainless animals, is continued in automatic reaction, but which, in the higher animals, and most particularly in man, is, or may be, inhibited. This incipient but suppressed reaction is an invariable accompaniment of perception. Consciousness is aware of the nascent reaction of the body, and aware of it as something very different from the outline in matter of a possible action of the body upon it. In the one case, what is perceived is merely the outside, the contours, of an object—contours which indicate the body's eventual action upon the object. In the other case, *real* action—not external contours, but inward, real movement—is perceived. That is to say, there is one material image, the body, which is apprehended in a way entirely different from that in which all other images are perceived, for in sensation consciousness is aware of internal cerebral movements actually commenced. It is true that in developed perception the sensations are translated into eventual data of sight, touch, and muscular sense, and that when the translation is made the original pales, but unless the outlines of the object perceived had been traced out in the original sensation, the translation would never have taken place. Now, since these nascent movements accompany all perception, it is plain that this image, discerned from within, and no longer from without, plays a peculiar part in a certain group of variable perceptions. It is a permanent and unique factor in that group of images which interest its needs. Hence, Bergson

argues, consciousness gradually attaches itself to it as a centre. "It is led to do so precisely by experience of the double faculty which this body possesses of performing actions and feeling affections—in a word, by experience of the sensori-motor power of a certain image privileged above other images. For, on the one hand, this image always occupies the centre of representation, so that the other images range themselves round it in the very order in which they might be subject to its action. On the other hand, I know it from within by sensations which I term affective, instead of knowing only, as in the case of the other images, its outer skin. There is, then, in the aggregate of images, a privileged image, perceived in its depths, and no longer only on the surface—the seat of affection, and, at the same time, the source of action. It is this particular image which I adopt as the centre of my universe and as the physical basis of my personality."

This is not the place for considering whether the explanation put forward is adequate to account for the transition from impersonal substance to a personal consciousness. What must be noted is that from one point of view the consciousness of personality is, in the language of Spinoza, "the idea of the body." This is the permanent element in the life of personality, and constitutes the ever-recurring present of the empirical psychical life. If a consciousness were confined to awareness of the body (which, along with the rest of the material universe, constitutes "an ever-renewed section of universal becoming") its existence would have as essential characteristic the fundamental attribute of matter—*i.e.* it would consist in a present which was renewed at every instant. The life of the humblest conscious automaton approaches nearly to this level.

But consciousness, in the case of man at least, is not restricted to the perception of the motor reactions which commence in the body and eventually become signs of external objects. Memory is an undeniable factor in the mental life of human individuals, and if the idea of the body constitutes the material element in the psychical life the spiritual factor is to be found in memory. As already mentioned, simultaneously with the perception a memory image is formed which is the reflection of the perception. Our past is thus "conserved of itself, automatically"; the memory "doubles the perception right through, arises with it, develops simultaneously with it, and survives it because it is of an entirely different nature from it." Thus each body carries attached to it, as it were, a condensation of the history which it has lived since its birth. Apart from the practical exigencies of biological and social life, these memories would never reappear as distinct images within the illuminated field of consciousness. They would melt into one another, and constitute the content of the liquid lapse of pure duration. But the mass of memories of the past is connected with the sensori-motor mechanism of the body, attached to them, so to speak, and the representations capable of guiding these motor mechanisms in their task by conferring on them the benefit of lessons learned in prior experience, reappear in consciousness in response to the demands of the body for guidance. Thus the present of the personal life is not merely the ever-renewed idea of the body; it is also the awareness of the materialized memories which have reappeared in order to guide the body in its practical activity. That is to say, the conscious life of an intellectual individual consists normally in a knowledge of the body, of the images derived from memory, of the reasonings which take place in connection with

these images, and of the effort which accompanies their materialization. The continuity of individuality depends on the persistence of the body, for it is the body which continually recalls, for its guidance, images from the depths of the unconscious.

It is clear now that personality arises as a result of and depends for its continuance upon interaction between the contents of spirit, that ever-flowing mass of "pure" memories, and the body which spirit has organized. The intelligent self is a partially spatial reality. It is the supreme means to the end which spirit has ever before it, viz. to triumph over the necessity of matter. The body, consciousness, memory, personality, are all means to this one end.

We are now in a position first, to understand how life in the body conditions limitation of spiritual life; second, to grasp the consequent essential difference between the reflective personality and the fundamental psychical life; finally, and above all, to comprehend the process of spatialization of spirit. That process must now be considered.

The fundamental characteristic of matter as Bergson conceives it, is necessity, automatically reciprocal and equal action and reaction. It is not difficult to show that the danger of a similar mechanical automatism continually menaces the mental life. The power to form habits, a marvellous provision for the conservation of the psychical energy, carries with it this danger. The experience of each individual goes to confirm the ease with which one degenerates into a mere creature of habit, a conscious automaton. But in so far as our activity, mental or bodily, is automatic, mechanical, in so far is it materialized. The associated ideas and the immediate reactions may be deposits of mind, but they are no longer elements in a truly mental life, and

associationist psychology and physiology are quite capable of dealing with them.

Apart, however, from this complete materialization of spirit, a partial process in the same direction is continually taking place. This is due, in the first instance, to reflection in the interests of action, but once it has acquired the habit of looking back, mind reflects upon its past merely for the sake of doing so. We have already seen that, *de jure*, perception is the discernment in matter of the possible action of the body upon it, that this discernment is invariably accompanied by an incipient movement on the part of the body to realize this action, and that the consciousness of this nascent movement eventually becomes a symbol of the perception itself, so that when the sensation (awareness of the nascent movement) occurs, the mind immediately leaves it in the background and gives its attention to the object which has provoked the reaction on the part of the body. Further, there is attached to each organized body a fluid mass of "pure" memories which constitute the contents of spirit, and which are perfectly unextended and so radically different from sensation, which is essentially extended and localized, being, in fact, the commenced real action of a definite part of the body. We are vaguely conscious of this nebulous conglomerate, the concentrated volume of our past experience. *As individual experiences*, past images have sunk below the level of consciousness, dissolved into the flow of pure duration, ready to reappear in all their detail when the call comes. In this sense they exist as unconscious states. During a discussion on unconscious states of mind at a meeting of the French Philosophical Society in 1909, Bergson argued that the unconscious was a reality. He held that certain

psychical states, taken in their entirety, carry with them the feeling of an obscurity and the vague perception of a *lacuna*, and, at the same time, the conviction that this *lacuna* could be filled and this obscurity dissipated without anything new and external to the state being super-added to it. Something exists in the state without rising above the level of the unconscious, and this something will appear in all its particularity of detail when the magnifying instrument of reflective attention is directed upon it. "The whole of our past psychical life conditions our present state without being its necessary determinant, while also it reveals itself in our character, although one of its past states is manifested explicitly in character."[1]

If the facts just mentioned are kept in view it will not be difficult to follow Bergson's account of the materialization of this spiritual content. Let it be supposed that the motor activity which normally accompanies perception foregoes its practical end and that its arrest is followed by subtle movements of the body which combine to mark out the prominent features of the perceived object. This is no arbitrary hypothesis; this preliminary inhibition and these subsequent movements of imitation actually occur. Into the bodily attitude thus induced, into the motor diagram of the object of perception thus outlined, images of past experience may, by an act of voluntary attention or reflection, be brought to insert themselves, and thus give flesh to the skeleton of the object outlined in the motor diagram. "While external perceptions provoke on our part movements which trace its main lines, our memory directs upon the perception received the memory images which resemble it and which are already sketched out by the movements themselves."[2]

[1] *M. et M.* (Eng. Tr. p. 191). [2] *Ibid.* (Eng. Tr. p. 123).

The mental life of man consists normally in a go and come between "pure" memory and movement in response to stimulus, in referring for guidance, in the ever-varying circumstances of practical living, to past experience, which is gathered up in spirit and may reappear in memory. His body gives his mind some purchase on the material world of which it forms a part, and memory furnishes the means of introducing real chosen action into that material world. It is necessary to examine this matter closely, for it is just here that the materialization of spirit and the consequent birth of intelligent selves is seen.

It is almost universally agreed in psychological circles that perception is a synthesis of presentative or immediately given, and representative or ideal elements, the latter being contributed from past experience. Bergson's account of perception agrees so far with the generally accepted version. But while in many quarters a great deal of confused writing has been produced regarding the nature of the presentation *continuum*, Bergson makes it perfectly clear that in attentive perception, on his view, this is constituted fundamentally by the consciousness of incipient movements of imitation which take place in the body. Our body is that part of the material world of which we "directly feel the flux. In its actual state lies the actuality of our present." Further, while the representative element is usually regarded as a concept which is particularized, it is, according to Bergson, derived entirely from memory, *i.e.* it is not conceptual. When attentive perception takes place, first of all, as we saw above, a bodily attitude is assumed or set of movements inaugurated which makes us aware of the outer shell of the object of perception. (This outline is distinctly present to consciousness in the phenomenon of the after-image.) But this is merely a temporary

phase, for the activity which would normally follow is inhibited only until such guidance can be secured from the experience of the past as will ensure its greater precision and efficacy. The mind then turns round and enters into its past in order to provide the needful direction. Setting out from a "pure" memory, it proceeds, under the guidance of the motor diagram furnished by the body, to precipitate this pure memory into images which will fit into the diagram and so complete the representation of the object of perception and finally induce activity. This may require many tentative efforts, and of course the operation may go on indefinitely, the representation becoming more rich with each successive addition from memory.

With that consummate skill in psychological analysis which is Bergson's supreme talent, he follows step by step the gradual passage of the fluent "pure" memory into memory-images, with the concomitant sensations or awareness of nascent bodily movements of reaction, and finally into bodily movement.[1] An example will serve to bring out the general plan. In the case of hearing, the brain almost automatically breaks up the confused flow of sound which is mediated to it through the ear, and it accomplishes this only if it is able to commence to repeat internally the main articulations of the words which compose the sound. This means that a certain bodily attitude is assumed, or that a motor diagram of the words heard is organized. But at the same time a mental attitude is adopted. "The hearer at once places himself in the midst of the corresponding ideas and then develops them into acoustic memories which go out to overlie the crude sounds perceived, while fitting themselves into the motor diagram."[2] More definitely, we

[1] *V. Matière et Mémoire*, pp. 134-169, and *L'Effort Intellectuel.*

[2] *M. et M.* (Eng. Tr. p. 145).

start from the "idea" or "pure memory," and a "continuous movement begins by which its nebulosity is condensed into distinct auditory images which, still fluid, will be finally solidified as they coalesce with the sounds materially perceived." [1]

The end of perception is action, and action is brought about by the release of energy along certain nerve fibres through special motor mechanisms. These motor mechanisms may receive their stimulus to action directly through the end-organ of sense acted upon by a real object, as in automatic action, or they may receive it through an internal cerebral organ which corresponds inwardly to the end-organ. This cerebral organ is not acted upon by a "real" object, but by an "image" which comes from the direction of pure memory. That is to say, in this second case "pure memories, as they become actual, tend to bring about within the body all the corresponding sensations.... The progress by which the virtual image realizes itself is nothing else than the series of stages by which this image gradually obtains from the body useful actions or useful attitudes.... The virtual image evolves towards the virtual sensation (*i.e.* incipient bodily movement), and the virtual sensation towards real movement: this movement, in realizing itself, realizes both the sensation of which it might have been the natural continuation and the image which has tried to embody itself in the sensation." [2] What is important for us at this juncture is the fact that spiritual content (*i.e.* pure memories) is actually materialized into images which are "identical with or similar to the object on which they mould themselves." They actually "abide with the perception in space."

This part of Bergson's thought can be thoroughly understood only if it be borne in mind that for him

[1] *M. et M.* (Eng. Tr. p. 154). [2] *Ibid.* (*Ibid.* pp. 168 and 169).

the subjective state of mind which psychologists call a percept, and the objective reality of which this percept is considered to be the mental representation, do not differ in that one is a mental, non-extended fact and the other material and extended. There is no meaning, Bergson holds, in asking whether "images" are within or without the mind. The difference between matter and our representation of it lies in the difference between the whole and the part, and (what is of primary importance for our present consideration) between rhythms of duration. The moments of the existence of matter are so homogeneous that it can scarcely be said to endure at all. The moments of spiritual existence are so heterogeneous that they constitute pure duration. Now, our representation or percept of matter lies midway between the two. In the act of reflection which takes place in attentive perception the spiritual content ceases to pursue its own rhythm of duration and gradually approaches the rhythm of matter so that it may enter into the outline of the object perceived, and issue in action. It does not actually coincide with the material object, for memory plays a part in every perception, which means that the rhythm of spirit is to some extent imposed on that of matter, and that the "present" perception is, so far, a history, not an immediate grasp of the present of matter. Bergson explains this by saying that the difference between subject and object is not to be stated in terms of space but of time.

In this mere outline of Bergson's extremely complex explanation of the process by which the content of spirit is materialized in the interests of practical life, the important fact to be noted is that the inner life actually does become spatialized through the demands of the body for guidance. The interpenetrating

"ideas" actually become more or less definitely juxtaposed, temporarily, no doubt, but none the less truly.

It was observed above that a fundamental postulate of Bergson's thought is that the spiritual life is limited by the organic or physiological life. The manner of that limitation is now plain. It comes about by means of the body, and more particularly the brain. Man's psychical life consists normally in putting "ideas" into action, and this translation is achieved only when the idea touches present reality on some side, *i.e.* only when "it is able gradually, and by progressive diminutions or contractions of itself, to be more or less *acted* by the body at the same time as it is *thought* by the mind. Our body, with, on the one hand, the sensations which it receives, and, on the other, the movements which it is capable of executing, is that which fixes our mind, gives it ballast and poise."[1] The perceptual representation appears in the interval between the pure idea divorced from bodily activity and bodily activity independent of pure ideas. It arises from the interpenetration of the two, the rough diagram contributed by the activity of the brain and the filling provided from the spiritual content. It is a temporary stage in the progress from arrested automatic action to a movement which is chosen or free.

We have now reached the point towards which the last few pages of exposition have been directed. A sharp line of distinction has to be drawn between the progress of the inner self, which is that of pure duration, and this spatialized spiritual substance which is due to reflection upon our past—reflection which is necessary if our bodily activity is to acquire the greatest possible precision and efficaciousness. If the psychologist confines his investigations to "images," "perceptions,"

[1] *M. et M.* p. 189 (Eng. Tr. p. 226). See also Eng. Tr. p. 197.

"ideas," etc., as distinct self-sufficing wholes, as *parts* of the psychical life, it is obvious that he is not entitled to pronounce any judgment upon the living process itself. All that he does is to analyse a mind which, through reflection, is already more or less spatialized. But Bergson holds that this is just what scientific psychologists are prone to do. They lose sight of the fact that mental life is a process, a development, and they "arrest and solidify into finished things the principal phases of this development." Thus they seek to reconstruct the living self with these dismembered limbs. Or they turn upon the inner life that reflective introspection which, by the very act of reflection, spatializes the purely psychical life which is free from all extension, and instead of revealing the nature of the living self they dissect a substance from which the life has flown.

The spatialization of the self has been followed on the lower levels. But in addition to images, concepts or general ideas are facts of which the psychologist seeks to give an account. Bergson argues that these, too, are due to a partial spatialization of duration. If a consciousness had a fixed backward look, if it uninterruptedly reflected or mused, it seems that it would never arrive at the formation of a concept. It would contemplate each event of the past as a distinct particular, with its date and peculiar details. If, on the other hand, consciousness were confined strictly to the present, it would live always in the universal, for the body *acts* the past, "habit being to action what generality is to thought." Such a mind would be conscious only of an identity of reaction, it would *feel* this identity.

But practical consciousness, it must be repeated, is not confined to either extreme. It moves between the two, and the general idea or concept, considered

as a universal particularized, arises from the intermingling of factors introduced from these ideal limits. The body first *acts* a resemblance, *i.e.* an unimpeded motor reaction accompanies an oft-repeated perception. The similarity of the objects perceived "acts objectively like a force, and provokes reactions that are identical in virtue of the purely physical law which requires that the same general effects should follow the same profound causes." This similarity of reaction in a variety of circumstances is "the germ which human consciousness develops into general ideas." It is as yet only a felt generalization acted by the body—how does it become a represented idea or concept? In the first place, memory supplies a filling to the motor outline, the consciousness of which is the consciousness of generality, and through the combination of the two the idea of an individual is produced, its general attributes coming from the side of the body, and its peculiar details from the side of memory. Emphasis on the element derived from memory brings before consciousness the *particularity* of the individual; stress upon the factor contributed by the body brings prominently before the mind the *universality* of the individual. Disregard of one or other element issues in conceptualism on the one hand, in nominalism on the other. But practical thought combines "just enough image and just enough idea" to form a general notion which will "lend useful aid to the present action."

The next step in the process seems obvious. It appears necessary only to carry reflection a little further, to isolate the conceptual framework from its contents, to posit the possibility of reflection upon these isolated universals, and immediately the whole apparatus of intelligence which has first been *acted* by the body

comes within the scope of representation. The animal *acts* intelligently. Its activity "outlines roughly the diagram of the human intelligence"; it takes place according to principles upon which man also acts, but which in the case of man, who has achieved the power of reflection, reveal themselves to consciousness.

The evolution of the intellectual individuality may now be completed if it be possible to trace the origin of intelligence. Bergson maintains that it is impossible to explain the *genesis* of intelligence after the manner of the comparative psychologist, who attempts to follow its progressive development through the ascending animal series. Since the activity of the animal outlines broadly the diagram of the human intelligence, "to explain the intelligence of man by that of the animal consists simply in developing an embryo of humanity into a human being." He equally condemns Spencer's effort to show that consciousness gradually receives the imprint of constant relations which subsist in matter, that it thus slowly adopts the general configuration of matter, and finally issues in intelligence. In positing a material world of objects and facts Spencer has presupposed intelligence. In the last place, Bergson opposes Fichte's attempt to deduce *a priori* the categories of thought. No philosopher who proceeds upon the assumption that our faculty of knowledge is one, and that it is co-extensive with the field of experience, can with any meaning put to himself the problem of the engendering of the intelligence, for the very possibility of stating the problem implies the possibility of his assuming a point of view outside his own experience. The thought at once suggests itself that we must trust our faculty of knowledge, make it our starting-point, content ourselves with a critical and exhaustive analysis of its nature, and by that very

analysis point the way to an expansion of experience in all its possible directions.

But a vital factor in Bergson's thought is that intelligence is not co-extensive with experience, and that this primary act of faith is not only not necessary, but also mistaken, for, by entering into a wider experience by means of intuition, it is possible to follow the progressive, or rather, regressive development of the narrower faculty of intelligence, and thus arrive at a clear comprehension of its limited sphere of application. Intelligence, Bergson urges, realizes itself most perfectly in the form of the geometrical intelligence. "All the operations of intelligence tend towards geometry as the goal of their perfect achievement." Now, the geometrical intelligence deals with space emptied of all content. In other words, space is a pure universal. Knowledge of this pure universal is arrived at by a double process of reflection. Firstly, on the level of ordinary attentive practical perception, pure memories are refracted into images which are inserted into an acted universal. Secondly, on the level of conceptual thought, the acted universal emptied of content may become an object of representation, and, if the abstraction be carried far enough, the represented universal may be emptied of *all* content. The illuminated moment of consciousness which is called the present is fundamentally the awareness of the body. At each successive present we experience an elementary identity of motor reaction on the part of the body. The continuous recurrence of this identical element is the basis of possible consciousness of space, for we have only to disregard the variable elements and we are left with a present which unceasingly repeats itself, which is, then, pure homogeneity, and the knowledge of space is nothing else. From a slightly different point of view it might be said that the

idea of space is arrived at by pushing to the extreme the work of reflection which has begun in perception. We can imagine the images becoming more and more clearly defined, and gradually the parts even of the images falling asunder and becoming more and more homogeneous, and at the utmost limit an indefinite multitude of qualityless points comes into view—that is the idea of space. Space is thus the most refined of all the concepts, and is the supreme intellectual conception. All other less refined concepts or general ideas arise on the path of the mind's movement towards space. As facts of mind these general ideas are a mixture of pure spirit and space; or, they owe their existence to the partial spatialization of time.

From this point of view a precise meaning may be attached to Bergson's description of intelligence as the original consciousness "insinuating itself into matter," "adopting the rhythm of matter," "concentrating itself on matter." Further, it is possible to follow in outline at least, the attempt which he makes to indicate the ideal genesis of intelligence. He asks us to make an effort of abstraction, by means of which we may be able to instal ourselves in the free *élan* which pulses in us, but which extends indefinitely beyond our own finite self. Next, we must relax the tension of the will, and gradually we pass towards the extreme limit of relaxation at which our mental life should consist in the awareness of the identical motor reactions of the body. We have passed from a spiritual life of free creative activity towards an existence which is ideally that of space—pure repetition, pure homogeneity. All distinction between past, present, and future has disappeared.

This intellectualization of spirit or spatialization of time is being continuously repeated in the life history of

every individual. The whole process of intellectual thought is one of elimination. At each successive step of scientific explanation we let something go, and in the supreme instance we have let everything go except a mere form, that of space. To begin with, in perception we disregard that which does not interest our functions, and are thus led to isolate particular objects. In the next place, in dealing with movement, science discards mobility, and considers only points on an imaginary line which subtends it. Pure mathematics exhibits the most extreme case of elimination, for all quality has disappeared from its object. It has to do with ideal figures in an ideal space. Physics investigates energy in its various forms, but it omits from its purview all but the quantitative aspect of its subject-matter. It does not touch the *qualitative* differences between one form of energy and another; it is content to express all these in terms of a *quantitative* unit of measurement. Chemistry deals with matter, but it, too, eliminates, for it studies *bodies* rather than *matter*, and it is impossible by investigating isolated bodies ever to explain the simple properties of matter. "At most chemistry can follow out into corpuscles as artificial as the *corpus*—the body itself—the actions and reactions of this body in relation to all other bodies." Physico-chemistry has for its subject-matter living tissue, but what is living in the tissue is left out of account, and the object with which this science deals is really something dead. The biological aspects of organism are resolved into physico-chemical factors. It is thought to be within the bounds of possibility to construct unforeseen forms by a re-arrangement of old elements. Thus the essence of life —creation of imprevisible forms—is eliminated and neglected. Psychology professes to deal with the life of the self, but it is a self devoid of activity which it

investigates. Thus in science, from psychology to pure mathematics, there is elimination all along the line.

Now, grant a principle which must be assumed here, if Bergson's argument is to have any validity whatever, viz. the principle that mind must become, or at least coincide with, that which it knows. Imagine a mind which is, on the occasion of a free decision, living its own unhindered life. At this point the act of knowledge coincides with the act generative of reality; the faculty of seeing is for an instant identical with the act of willing. The soul is in perfect sympathy with itself and with the profound life which pulses in it. Next imagine that the mind has relaxed into sympathy with a mode of reality which is not coincident with that of pure spirit, but partially spatialized. The very fact of this "sympathy" implies a correspondingly partial spatialization of the spirit which has attained to "sympathy," implies, *i.e.* a partial negation of spirit or time, a partial elimination from time. This negation may proceed until the mind gets into sympathy with space.

Something of this kind happens in all scientific investigation. The mind, by a painful effort of intellectual expansion, may gain an intuition of the inner nature of life or time. At this point intelligence is transcended. But mind cannot maintain itself in that state of expansion. It has for so long adapted itself to the form of matter that it has, in a sense, become a slave to its own practical needs. It immediately lets go the essential element in this living activity, and analyses it into psychological or physico-chemical elements, which in their turn are reduced to quantitative physical and chemical factors and ultimately expressed in mathematical terms. This intellectualization of spirit was originally a necessity if spirit was to overcome matter. Having encountered matter it was impelled,

before it could hope to conquer it, first to insinuate itself into matter, adopt its form, so to speak. But once it has acquired the faculty of intellectualizing, mind extends the sphere of this function beyond the merely practical purposes for which it was originally gained, and performs its intelligizing operations on all metaphysical reality. This is what happens in scientific investigations. It is thought that a purely theoretic knowledge of reality is being gained, and that, too, by means of intelligence, but Bergson argues that intelligence, because of its original function, is incapable of apprehending the real nature of anything except that which is ballasted with geometry, and that the so-called laws of nature have nothing positive in them, but are simply partial negations of the inwardness of reality. They express the nature of the absolute only when they are refined into mathematical laws, *i.e.* they are true only in so far as they are capable of being expressed in mathematical equations. In the more concrete form which they generally assume as laws of nature they are simply provisional stopping-places on the way to mathematical expression. They are conventional, mind-constructed, and have no counterpart in reality.

In accordance with this theory, the two essential functions of intelligence, deduction and induction, emerge in the course of the mind's progress towards perfect intellectualization. Bergson points out that deduction plays but a feeble part in psychological and ethical sciences, whereas in geometry, astronomy, physics—sciences in which we have to do with material things, things most unlike ourselves—deduction is all-powerful. He finds in these facts confirmation of the view that the deductive function of intelligence is held in abeyance so long as the mind remains in sympathy with living reality, coming into requisition only when

the mind attempts to gain an insight into *material* reality, and reaching perfection in pure mathematics. What appears, in the deductive process of intelligence, to be an effort is really an *abandon*, an inversion of the movement of spirit, a degradation of time towards space, of spirit towards an intelligence which is simple identity.

In the case of induction, Bergson's argument is essentially similar to that employed by Hume. Induction rests upon the belief that there are causes and effects, and that the same effects follow the same causes. But this belief implies that reality is "decomposable into groups which may be practically held to be isolated and independent," and that these groups repeat themselves in the course of nature's progress. But in concrete nature we can never be sure that particular events will repeat themselves. In fact, we may be sure that they will not do so. Bergson argues that inductions based upon this assumption have in them an element of uncertainty, except when the subject-matter is purely quantitative. Then only do our inductions become absolutely certain. That is to say, induction, as well as deduction, arrives at universally true conclusions only when it has to do with purely spatial determinations. Induction implies that time does not count, since it is assumed that a past event may be repeated. The essence of time is its irreversibility, and this peculiar feature must be eliminated from a sphere of reality in which inductions resting on the law of causation can be regarded as universally true. Again, induction implies that qualities may be superimposed on each other like quantities. It is only by measuring the incommensurable, to use a Lotzian phrase, that inductions can gain any purchase on concrete reality. "Our inductions are certain to

our eyes, in the exact proportion in which we sink qualitative differences in the homogeneity of the space which subtends them, so that geometry is the ideal limit of our inductions, as well as of our deductions. The movement which issues in spatiality deposits along its route the faculty of induction as well as that of deduction—*i.e.* intellectuality in its entirety. It creates them in the mind."[1] So long as thought in its widest sense—not logical thought—follows the windings of nature in its qualitative changes, it does not pause to measure. If thought measures, counts, performs deductive and inductive operations, it ceases to follow nature. That is to say, its progress is interrupted, and at this point, on the occasion of an interruption of its real causal progress, inductions and deductions are formed. We come back, then, to the point from which we set out. The processes of intellect, in the narrow sense of intelligence, far from being activities of spirit, arise only when that activity is interrupted, and have their source in the spatialization of time, the materialization of spirit. The intuition of pure space is intellect's final goal, and its operations of induction and deduction are but temporary stages in its progress towards perfection.

The law of causation is usually regarded as a regulative principle of all our thinking, as a principle according to which all thought proceeds, and which, as soon as it is understood, is at once admitted to be true. Has Bergson any account to give of the genesis of this principle? He has. It, too, appears in the course of the degradation of spirit into pure intelligence. It is a principle of the mind in the middle state intermediate between pure spirit and pure intelligence. Considered as a "necessary" principle, the nerve of the

[1] *É.C.* p. 236 (Eng. Tr. p. 228).

law of physical causation is conceived by Bergson to lie in the fact that in the material world identical elementary conditions repeat themselves. To say that the law of causation has universal validity within the sphere of physical phenomena is to affirm not only that the same causes produce the same effects, but that the same causes do recur. A causal law is certain, that is to say, only when you can affirm not simply a relation between *A* and *B* of the form *All A is B*, but when you can affirm that *A* can actually appear a second time, and an indefinite number of times. That amounts to saying that the law of causality expresses the permanence and reliability of the universe—not in the sense that it affirms uniformity of connection throughout, but in the sense that it affirms the absolute changelessness of the universe. Certainly, causal laws would be of very little, if any, value to us were we inhabitants of a world in which conditions never repeated themselves, but Bergson goes much further than this, for he undoubtedly proceeds upon the assumption that in such a world causality would lose all significance, not only as a practical concept, but as a necessary principle. It assumes, he argues, a higher degree of necessity in proportion as it is more perfectly identifiable with the principle of identity. The law of identity, which is the absolute law of our consciousness, asserts that what is thought is thought at the moment we think it, and it derives its absolutely necessary character from the fact that it does not bind the future to the present, but the present to the present. As the law of causality approaches the principle of identity, *i.e.* as it is regarded as the principle of a world in which all distinction between present and future disappears, a world for which existence means an ever-renewed creation, it assumes a similar necessary character. In the extreme,

in such a system as that of Spinoza, for example, causality is identified with identity in the absolute, and relations of succession are transformed into relations of inherence. The law of causality would become merged in the law of identity in an intelligence which had arrived at its goal, and only then would it become a necessary principle.

In the ordinary human intelligence, however, this identification has not been consummated, and causality is regarded as in some sense the principle of change. It is only when we "conceive clearly the idea of a mathematical mechanism" or when "some subtle metaphysic removes our very legitimate scruples on the point" that the coincidence of causality and identity is regarded as complete. The law of causation, as a principle of the "middle" state, is the result of a compromise. There is in every human mind the latent or potential conception of space, on the one hand, and on the other the vague awareness of its own creative activity. The law of causation, as ordinarily understood, issues from a mingling of these two factors. We feel ourselves immediately as a free force; we attribute necessity to the spatial world. Necessity and force thus company together, and each is corrupted by the presence of the other, so that when force is again attributed to the mental life it is impregnated with the idea of necessity, and the present mental state is regarded as a cause determining with strict necessity the effects which flow from it. On the other hand, one's consciousness of oneself as a free force is always accompanied by a vague premonition of *possible* activity, and the passage from the present to the future takes the form of an effort which does not always lead to the realization of the conceived possibility. Now, "common sense anthropomorphically interprets objective events," and the ordinary

practical consciousness conceives effects in nature "as prefigured in the cause in the same way as our action is prefigured in the mental state which precedes it," and regards the cause as changing into the effect as one state of mind changes into another. In either case, then, the so-called causal relation is an impure relation. Purified in one direction, it becomes coincident with the principle of identity; purified in the other direction, it is absorbed in the only real causality—the creative activity of the inner spiritual life.

The general conclusion may now be formulated. The structure of intelligence is directly due to the spatialization of time or the materialization of spirit. In the next chapter it will be necessary to follow Bergson in his account of this process in the evolution of the race: so far the origin of intelligence in the mental life of individuals has been considered, and it has been seen that in perception there is a necessary materialization of spirit in the interests of action, that in conceptual thought this degradation of spirit into intelligence is continued, and that at the farthest extremity the form of intelligence becomes identical with the form of space. All concepts or categories of the understanding are practical aids which belong to the stage of knowledge intermediate between the intuition of spirit on the one hand and the intuition of space on the other. They are the constituent factors of intellect, which is itself a provisional stage of the existence of spirit. Spatial intuition (*i.e.* intelligence, the supreme law of which is the law of identity) and spiritual intuition alone are faculties of pure knowledge. They attain to knowledge of the absolute. The great mass of intermediate conceptual knowledge is an incomplete, provisional, practical representation of reality.

Now, the antinomies connected with the nature of

the self are due, ultimately, to the fact that this provisional, practical form of spirit is treated as if it were spirit in its pure state. For example, men have the immediate feeling of their own inner freedom. But when they reflect upon it, they either proceed to search for its explanation in their *intellectual* nature, or they attempt to show how, from the structure of the *rational* self, freedom is impossible and the feeling of freedom a delusion. We should have been spared the ages of controversy between advocates of free will and determinists if the initial mistake of looking for freedom within intelligence rather than in pure spirit had been avoided. Freedom is not a characteristic of spirit so far as it is intellectual, but only so far as it is supra-intellectual. All attempts to prove or disprove freedom have, however, confined themselves to the intelligence level, and so have been doomed to unfruitfulness, interminability, and self-contradiction. Neither introspective psychology nor the philosophy of reflection is competent to decide the question of freedom. Both of these are, in fact, exclusively concerned with the nature of the intermediate self, which is a degradation of spirit into matter, of time into space, of freedom into necessity. The psychology of introspection has to do with spirit turned towards action, *i.e.* spirit partially materialized, the philosophy of reflection is concerned with the intelligent *ego*, which is, so far as intelligent, the negation of spirit. If freedom, then, is an attribute of the inner life, both this psychology and this philosophy are utterly incapable of ever proving or disproving it.

A rapid survey of his criticism of the arguments used by determinists and defenders of freedom respectively will serve to make Bergson's position clearer. The argument of physical determinists is based upon the principle of the conservation of energy. Bergson's

contention is that this principle can be recognized as of universal application, and therefore as relevant to the problem of freedom, only on condition of the psychological hypothesis that the mental life is a system similar to physical systems in respect that in the life of the self predicaments do recur, that the same motives act afresh on the same person, that the history of the self is that of a series of states set side by side, which repeat themselves indefinitely in a homogeneous time. But this condition is fulfilled only in the case of those actions which have become automatic, *i.e.* only in the case of materialized spirit.

The argument of psychological determinism implies an associationist conception of mind. Every state of mind is held to be determined, necessitated, caused by antecedent states. We are familiar with associationism in Mill and Bain, according to whom a motive is a definite state with clear-cut outlines. There may be a conflict of such motives, and the strongest will ultimately prevail. Bergson argues, however, that these clearly defined states do not exist in any *living* mind in the actual process of a free decision. The states which the psychological determinist has in view, are, generally, such constant motives as, *e.g.* fear, particular kinds of sympathy, aversion, hate, conceived as so many forces which act upon the soul, compelling and determining it. These constitute, in Windelband's phrase, *das dauernde Wesen* of the choosing will, by which he means that they are the psychical deposits of a rationally autonomous will. Bergson would say that they are the materialized elements of spirit, and that any behaviour conditioned by them springs from a psychical mechanism. Such actions do indeed take place on the intellectual level, but if the attempt is made to explain the living process in terms of these states, then the error is

committed of substituting materialized deposits for a living activity, an artificial mechanical reconstruction for the concrete phenomenon. It is not competent to speak of states or motives as in any sense, by any association or conjunction, causes of a free decision, since, far from forming elements in the process of spirit, they constitute factors in a simple psychical mechanism, which may have been constructed by spirit, but which is now left to itself, and acts quite automatically. Such habitual or automatic actions do not directly bring into requisition the forces of spirit at all. Associationism adequately explains them by referring them to clearly defined psychic states, separated from one another, but it is incapable of either affirming or denying the freedom of the fundamental self. It never gets into touch with it so long as it keeps to the "states" level; it deals always with a more or less mechanized, spatialized self, which is to that extent the negation of the inner self.

Once more, the determinist may hold that any so-called choice is absolutely determined, since in the circumstances no other course of action is possible. Given the particular antecedents, only one resultant action can follow; there is nothing contingent in the choice. The champion of free-will attempts to meet his opponent on his own ground. He asserts that when the self chose one course of action another course was open to it, and that consequently its choice was free. "To be conscious of free-will must mean to be conscious, before I have decided, that I am able to decide either way." Now, both disputants conceive that the self has reached a point at which two distinct courses of action lie open before it: it hesitates, deliberates, and finally chooses one of those ways—necessarily, one says, freely, contends the other. But here again the argument does not maintain itself in touch with the process in question.

Both disputants have adopted the position of spectator of a process already accomplished, have substituted their mechanical reconstruction for the living activity, and have then proceeded to argue about the symbolic spatial representation as if it were the free act in its essential movement. It is quite true, however, that hesitations do take place. We are all aware of that. But these hesitations are interruptions of the inner spiritual life, and are peculiar to the history of a consciousness which occupies the intellectual level. In the case of the life of the inner self it is meaningless to speak of divergent open ways presenting themselves to its *hesitating* activity. In the act of intuition in which the nature of the fundamental self is immediately grasped, the flux of a confused multiplicity of states is felt, and it is true that in the awareness of this becoming there is included a dim consciousness of the direction in which the living process is moving. But the consciousness of direction is, in James' phrase, "the dawn of a brightness which we feel to be dawn fulfilled." It is not, in any sense, to be identified with the path of our disputants, which stands open before a hesitating will compelled to make some decision before it can enter into it. *After* the dawn has been fulfilled we may, as reconstructors, isolate and fix in the process of fulfilment a number of successive phases, which we term "the conception of opposite motives, hesitation, and choice," but in doing so we merely hide the fundamental mechanical symbolism which this reconstruction involves under "a kind of verbal crystallization." The terms are borrowed from the life of a partially spatialized self, and the attempt to give them meaning when applied to the dynamic progress of pure spirit is utterly futile: they have, and can have, no point of application there.

The argument of the determinist may assume another

form. He may hold that complete and perfect knowledge of all the antecedents of an action without any exception would enable one to make an *infallibly true* forecast of that action—*i.e.* one could predict the act in the totality of its features, with the peculiar qualitative shades which it, as the act of a particular person, possesses. Bergson replies that this statement of the argument is meaningless. He proceeds upon the principle that the true nature of the cause reveals itself only in the effect, so that if one is to know all the antecedents one must already have lived through them, and arrived at the effect. It is devoid of meaning to speak of knowing all the antecedents without any exception, and so of being able to *predict.* The smallest "antecedents" can be known in their fulness only *after* the completion of the act. Not even the person himself who is acting can predict, if by prediction is meant the anticipation, in all its detail, of the result of the act, for the realization of an ideal always differs, however slightly, from our anticipation, and there are not two identical moments in the same conscious being. Prediction of human action is possible only in so far as elements repeat themselves in the mental life. But as soon as homogeneous elements appear in the mental life it is to that extent materialized. Prediction of the action of an *intelligent* being is admittedly possible, but in so far as intelligent, he is de-spiritualized, and prediction is confined to those impersonal factors "common to him with others, and not properly belonging to himself." These factors are not constituents of the spiritual progress, but immobilizations, materializations, of it. Here again, then, the contrast is fundamental between the spiritual self, the future of which is entirely imprevisible, and the intelligent self, the actions of which, just so far as they are rational, may be foreseen.

Finally, the determinist founds his supreme argument upon the principle of causation. But Bergson's answer is, in the first place, that if the principle of causality is what the empiricists assert it to be, viz. "the summing up of the uniform and unconditional successions observed in the past"; if, that is to say, the cause is simply an antecedent which is unvarying within our experience, then it is incompetent to employ this principle to disprove freedom, because of the simple fact that it can find no point of application to the inner life of the self, seeing that within that life "no regular succession has ever been discovered," no antecedent ever recurs. In the second place, we have seen that the principle of causality, as ordinarily understood, is the result of a compromise between the principle of identity on the one hand and true causal activity on the other. As its coincidence with the principle of identity becomes more perfect, the causal relation becomes a necessary relation. Observe then the bearing of that fact upon the present consideration. As this coincidence becomes complete the law of causation becomes strictly applicable only to a purely mechanical universe, in which the future may be said to inhere in the present and to be deduced from it. Consequently the law of causality, considered as a principle of necessary determination, *does not touch our freedom*, for freedom, if it is a fact, is an attribute of our spiritual life, and this has no mechanical or homogeneous element in it—it is pure duration. The law of causality, however, considered as a principle of necessary determination, does apply strictly to those modes of human behaviour which are the result of bodily or psychical automatism, for in these cases the necessary conditions for its application are fulfilled—antecedents do recur. But here once more we are in the realm not of spirit, but of the material deposits of spirit.

Similarly, if causality be developed in the opposite direction, and regarded as a dynamic principle, *i.e.* if the causal relation be apprehended in accordance with the clue gained from the immediate consciousness of our own activity, then such a conception, it is plain, does not involve the necessary determination of the effect by the cause, since in the mental activity as it is immediately perceived the future exists in the present only as a possibility, and the passage from the present to the future or from cause to effect takes the form of an effort which does not always lead to the realization of the dimly perceived possibility. If then causality be conceived in this second sense, the fact of freedom remains untouched.

Throughout this discussion a fact towards the elucidation of which this exposition has been directed as one of its ends has received emphasis again and again. The self with which empirical psychology and reflective philosophy deal, the self which Kant, for example, sought to dissect, is opposed to the deeper self which is revealed to intuition, a self which has no permanent element in it, in the life of which there are not two identical moments, the very existence of which means free activity, continuous elaboration of something new. The fact of freedom belongs to this second self, and to it alone. The first self comes into being only through the negation of the free activity of the second. Freedom is not an attribute of the self of the middle state. That self, *quâ* intelligent, is not free. Nor can the fact of freedom be grasped by intelligence. The knowing faculty can acquaint us of those features of reality which have ontological affinity with it; it can, at the most, refind itself in reality. Intelligence, the supreme principle of which is identity, is by its very nature incapable of apprehending freedom. If it

attempts to grasp the fact it mutilates it. It cannot set to itself the problem of freedom without implicit contradictions, and if we were purely rational beings the fact of freedom would never come within our ken. Freedom is immediately apprehended in intuition.

It must be admitted that our sense of freedom has its ground in an immediate awareness of the activity of our own inmost personal being, an activity which must be lived before it can be grasped in thought. Further, the distinction is valid and important between the progress of the living consciousness and our reflective reconstruction of that progress. Bergson, however, goes so far as to assert that the difference between the progress of active consciousness and our reflective construction of it is absolute, that the two do not touch at any point, that, indeed, the one is the negation of the other. He speaks of the fundamental illusions of the reflective consciousness, of its incapacity to think time except as identical with space, of the necessary contradictions and insoluble difficulties into which it falls when it attempts to deal with the living and active. He *substitutes* for it an immediate consciousness, in which these oppositions and contradictions disappear. He sets over against each other, *as contrasted*, the conceptual apparatus on the one hand, and the functioning inner self on the other. The immediate experience in which we are aware of our own free activity, and the most thorough-going conceptual representation of that reality are ways of knowing which differ in *kind*, and not, as Professor Henry Jones says somewhere, in "completeness of articulation."

Bergson's position here may be compared with that of Kant. Kant sought to conserve freedom by considering it as a fact of an "intelligible" or super-sensible world,

in which the categories of pure reason have no application. For Bergson, too, free activity is a characteristic only of super-intelligent reality. But though intelligence is inherently incapable of grasping, much less of explaining, freedom, it does not follow that Kant's solution is the only possible one. Bergson does not relegate freedom to the noumenal sphere. It is a fact, indeed one of the most indubitable facts, of *knowledge*, though not of *conceptual* knowledge. He, however, goes so far as to maintain that the feeling of activity is mere feeling. He will not admit that it is in the least degree determined by thought. This is very disconcerting. The ultimate force which constitutes individuality may have to be acknowledged as, in the last resort, "something inexpressible, something incalculable, withstanding all analysis." Still, it may be contended that although it may never be completely determined, it is not wholly indetermined, entirely undifferentiated.

The question will have to be faced at a later stage whether by thus confining metaphysical knowledge of time and freedom to intuition Bergson does not invite us to enter a morass of feeling in which clear consciousness of self-identity, of the distinction between subject and object, of time, and of freedom, is dissolved in a vague, undifferentiated awareness of living which, as such, is never realized in experience; and whether Bergson's "becoming" is not only another name for Kant's "noumenal" world or for the "pure being" of Plotinus.

CHAPTER II

THE INTUITION OF THE COSMICAL *ÉLAN*, AND ITS CONDENSATION INTO INTELLIGENCE

In the previous chapter it was seen that by developing the constituent factors of the human mind in two directions we reach, at one extremity, unalloyed spirit, which is identical with pure duration, and, at the other extremity, intelligence in its most rigid form, which is not to be differentiated from pure space. The question at once presents itself: Is it possible to extend the range of application of the intuitional method, or must the philosopher who adopts this method resign himself to the exclusive contemplation of the expansions and contractions of his own mind?

Reference has already been made to a principle which is fundamental in Bergson's procedure, the principle, viz., that in all cases of real knowing, the act of knowledge must "coincide with the generative act of reality." In some passages, indeed, he speaks as if coincidence and identity were regarded by him as synonymous terms. In the next place, he postulates as a necessary presupposition of metaphysical knowledge a species of "intellectual sympathy" between the knowing mind and the object known; a kind of "intellectual auscultation," in which the heart of reality is felt to palpitate; a process of intellectual dilatation, by which

one places oneself *in* the thing which one is studying. It is a familiar doctrine of Idealism that there must be "ontological affinity" between the mind and the reality which it knows, that, indeed, the primary and also the ultimate assertion that can be made by the mind concerning the reality which enters into its experience is—"This is bone of my bone, flesh of my flesh." If reality yields up its secrets to intelligence, for example, a necessary presupposition is that reality is intelligible. But this is not Bergson's position. He maintains that mind actually becomes that which it knows. "To philosophize consists in placing oneself in the object itself." In the act of knowing spatial reality mind is literally spatialized, and so long as it is to retain its knowledge of that reality it must remain spatialized. "Strictly speaking," he says, "no other duration than our own can exist, but ... the intuition of our duration, far from leaving us suspended in the void, ... puts us in touch with a whole continuity of durations, which we must try to follow, whether it be towards the depths or towards the heights. In either case we can dilate ourselves indefinitely by increasingly violent effort; in either case *we transcend ourselves.*"[1] That is to say, in the operation of knowing a duration inferior or a duration superior to its own the *human* mind disappears. It is more than human, Bergson asserts in another place, to grasp the living mobility of things. We must, if we are to pursue the intuitional method of philosophy, transcend the "middle," "human" state in two directions. We must pass beyond ordinary conceptual thought in the one direction to gain an ultra- or supra-conceptual knowledge, and in the other to gain an infra-conceptual or purely mathematical intuitional knowledge. In both cases, at the extreme, we leave

[1] "Introduction à la Métaphysique" (*Rév. de Méta. et de Morale.* Jan. 1903).

the human level, and become that which is the object of knowledge.

It will be remembered that Kant assumed a given raw material which was received into the forms of space and time, and woven into the categories. Now, the act by means of which this raw material was grasped might be said to be an infra-conceptual intuition. Bergson presupposes such an intuition, but with this difference, that "there is not any essential distinction between intelligence and this intuition." There is no need to suppose a formless raw material upon which order is imposed, for the intuition is possible only if the matter grasped and the intelligence grasping can enter into "sympathy"—*i.e.* only if intelligence and matter are identical in nature.

Similarly, corresponding to Kant's "intelligible," or super-sensible, reality, there is for Bergson a supra-conceptual psychical, or, more generally, vital reality, which is grasped in an effort of supra-intellectual intuition. In the first effort of intuition, the human mind "proceeds to an increasingly scattered duration, the palpitations of which are more rapid than ours, and divide our simple sensation, diluting its quality into quantity. At the limit we should find pure homogeneity, pure *repetition*, by which materiality is to be defined."[1] In the second effort of intuition we achieve "a duration which increases in tension, which contracts more and more, becomes more intensified. At the limit would be eternity—not conceptual eternity, which is an eternity of death, but an eternity of life; a living, and consequently always moving eternity, in which our duration would find itself again in us as the vibrations in the light, and which would be the concretion of all duration, as materiality is the scattering of it."[2] The

[1] *I.M.* p. 61. [2] *Ibid.*

two conditions of metaphysical knowledge of the universe are, then, a certain tension of the mind, and a faculty of sympathetic insight.

In the present chapter the two supreme efforts of intuition claim attention—first, the intuition of cosmic life, or spirit; second, the intuition of matter. We shall see not only *that*, but also *why*, the intelligence alone is incapable of apprehending life, but approaches in certainty, compass, and insight to the intuition in its knowledge of matter.

First, then, the intuition of life. One of the objects of Bergson's famous work, *L'Evolution Créatrice*, is to show that the universe in its entirety is of the same nature as the personal mind, that in it two movements similar to those which are found in human minds reveal themselves—the one towards growth, creation, continuous elaboration of something new, the other in the direction of homogeneity and repetition. The universe is a great individual akin to ourselves. It endures as we do. Just as our self is made up of a number of inter-penetrating tendencies, so the universal self is composed of systems which, in their turn, contain organisms of various kinds. There may be a tendency in this great cosmical self for the systems to fall apart or to isolate themselves. Science seizes upon and emphasizes this tendency. But an underlying *élan*, akin to the will in us, directs them to unity, keeps them in a continual state of greater or less inter-penetration, and, in the course of its free activity, incessantly creates new worlds. This power is God. He is "concrete eternity," or "the concretion of all durations." In Him all the tendencies of the universe are perfectly unified. He is that creative activity which is the fundamental basis of all life, and which is not exhausted in the finite impetus which constitutes the life in our

solar system. He is "incessant life, action, freedom." Each personality is, fundamentally, akin to Him; each individual is, so to speak, one tendency, one idea, in the onward moving life of the whole; every single will is a pulsation in that life. The theory of the existence of the self as a separate individuality radically distinct from other individualities, human and divine, is, it would appear, not held by Bergson. All are united—not in a common aim which, by an act of will, individuals have rationally chosen as their own; not by a reasonable submission of individuals who still retain their individuality to the Divine Will; but in that all yield to "the same formidable impetus."

In the first place, if it be true that the universe is such a dynamic whole in which a creative force energizes, this activity cannot be apprehended in the categories of intelligence, any more than the time aspect of the self, immediately perceived in intuition, can enter into those categories. The concepts of intelligence are mechanical, the supreme one, as we have seen, being space. Now, Bergson argues that a mechanical construction of the universe is approximated only as the active elements are omitted from consideration. "Mechanical explanations," he says, "are valuable for the systems which our thought detaches artificially from the whole. But of the whole itself, and of the systems which, in this whole, are naturally constituted in its image, one cannot admit *a priori* that they are mechanically explicable, for then time would be useless, and even unreal. The essence of mechanical explanations is, in fact, to consider the future and the past as calculable functions of the present, and to submit that *all is given.* On this hypothesis, past, present and future would be visible at a glance for a super-human intelligence capable

of making the calculation."[1] But if a mechanical reconstruction could exhaust its nature it is clear that change, growth, evolution, transmutation, would be utterly foreign to the universe. They would be illusory ideas. What appeared to be change would be, in fact, an appearance only, due to our limited point of view. Real activity, pure spontaneity, can have no place in a system which is interpretable without remainder in mechanical concepts. The important point to be observed is that, according to Bergson, intelligence is inherently incapable of any other than a mechanical interpretation of the universe as a whole, and this may be proved from two different points of view. In the first place, it may be demonstrated that all attempts of the intelligence to interpret or to explain life have been fundamentally mechanical interpretations or explanations. In the second place, it may be shown that the form of intelligence has evolved with the purpose of fulfilling a definite function, and that in order to fulfil that function it must be fundamentally mechanical.

Firstly, all attempts at conceptual explanations of life have issued in the mechanizing of life. Bergson accepts the theory of transmutation as a sufficiently exact and precise translation of the known facts of biology. This hypothesis, he thinks, is showing itself more and more as at least an approximate expression of the truth. It is not rigorously demonstrable, but, short of the certitude which theoretic or experimental demonstration gives, it possesses the indefinitely increasing probability which evidence supplies, and which tends to certainty as to a limit. Every conceptual explanation of the facts of transmutation, however, has assumed either a frankly mechanical form, or a teleological form which, ostensibly not merely mechanical, turns out to be

[1] *E.C.* p. 40 (Eng. Tr. pp. 39-40).

fundamentally so. In certain quarters the recent developments of physico-chemistry afford some ground for the hope that living processes are not beyond the scope of explanation on the purely intellectual level. Bergson argues, however, that although the physico-chemist may discover in the processes of organic creation an increasing number of physico-chemical phenomena, and may even succeed in reproducing artificially an external outline of certain facts of organization, such as the indirect division of the cell and protoplasmic circulation, it does not follow that he is approaching any nearer to a revelation of the secret of life. In fact, the deeper study of histological phenomena discourages rather than fortifies the tendency to explain everything by physics and chemistry, and it is a noteworthy fact that while physiologists, who deal only with the functional activity of the living being, are hopeful of a physico-chemical explanation of life, embryologists, histologists, and naturalists, who concentrate attention on the fine structure of living tissues, are far from sharing this willing belief in the physico-chemical quality of vital activities. The explanations furnished in the name of physico-chemistry are valid for the mechanical aspects of vital activities, for the elements which are unceasingly repeated in the living being, for the facts of catagenetic order. That is to say, these interpretations do not rise above purely mechanical explanations of strictly mechanical facts.

If this be admitted, it may, nevertheless, be contended that by making use of the concept of teleology intelligence may rise above the purely mechanical level, and so is not, when faced with living activity, in the desperate case in which it would be were it bound down to strictly mechanical categories. We could have anticipated, however, from Bergson's argument, stated in the previous chapter, that free activity of the self i

not explicable by motives or ends, that pretended teleological explanations of the cosmic organism *quâ* active are quite futile. The concept of teleology, as formulated by intelligence, does not carry one beyond the limits of a purely mechanical theory of the processes of life. According to the extremest form of this doctrine, a teleological system is one in which beings and things realize a cut-and-dried programme, and the progress of time consists in the realizing of this scheme which lies open to a superior intelligence. Here again, then, *all is given*, all is previsible. "Teleology thus understood is merely a mechanical theory *à rebours*."

According to the later views of teleology, however, "each living being realizes a plan immanent in its substance." This is immanent or internal teleology. The living being realizes the end of its existence when all its activities are harmoniously co-ordinated. Bergson thinks that even on this view the principle of *external* teleology is implicit, for each organism is itself made up of elements which are themselves organisms, and the activity of each of these elementary organisms is subordinated to the life of the whole, or greater organism. In other words, the activity of each small or elementary organism is determined by its function in the whole. His own position is that "if there is teleology in the world of life, it embraces the entire life in one indivisible grasp."[1] The bearing of this on individual freedom may be noted in passing. So long as the individual remains a distinct personality his activity must be regarded as necessarily subordinated to the activity of the whole. It is only when he loses his existence as an individual, and enters into the embrace of that teleology which includes life in its entirety in one indivisible grasp, that he becomes free.

[1] *E. C.* p. 47 (Eng. Tr. p. 46).

It may well be questioned whether this does not imply the complete annihilation of *human* freedom.

The important point for present consideration is that in either of the doctrines of teleology just outlined the implication is that all is given, present, past, and future, and all so-called activity is simply the realizing of a determined plan. In the one case, the whole universe gradually realizes a plan which may be predicted, which exists in the mind of a supreme intelligence: in the other, each organism within the whole realizes the plan of the whole, which, again, is previsible. On either view, intelligence maintains itself on the strictly mechanical level, and fails to interpret what is essential in the transmutation of forms of life, for evolution means growth, and growth implies imprevisibility. In life, time is not, as the intelligence supposes it to be, an independent variable—the time of Newton, for example. It is history, and history never repeats itself. Such or such an aspect which intelligence has abstracted and fixed may appear to re-present itself, but history in its concreteness never recurs, never in the case of the individual, and certainly never in the progress of the universe as a whole. Its future is, then, entirely hidden; it cannot in any sense be said to be realizing a programme. Even a super-human intelligence could not foresee its progress, for intelligence, in its generation of conceptual knowledge, is "always pre-occupied to know under what *ancient* rubric it will catalogue any new object whatsoever." If this be so, and if teleological concepts, in common with all others, be basally mechanical, it follows that if life consists in creative evolution (*i.e.* of a succession of absolutely heterogeneous, quite disparate, qualitative changes) intelligence, in following its natural procedure, has always failed to interpret life, and will always do so. It has utilized,

and will continue to utilize, only its old framework, whereas each moment of life means the evolution of something new. The fundamental question is: Is this procedure simply a bad habit, or is intelligence bound to the mechanical method of interpretation?

This question leads to the second main consideration, viz., that the form which intelligence has had to assume in order to fulfil its function precludes the possibility of a conceptual grasp of living activity. Its powerlessness does not lie in the fact that it has habituated itself to a certain method of procedure. It is inherent in its nature. Intelligence has, in fact, been deposited by life on its march; it has been condensed from a greater whole; it is the contraction of a wider faculty of knowing. If this be so, then it follows that life cannot be comprehended in its ultimate nature by that which, as a part, is to some extent its negation. "If, in evolving in the direction of the vertebrates in general, of man and of intelligence in particular, life has had to abandon on the way many elements incompatible with this particular mode of organization, and to entrust them to other lines of development, we must seek the totality of these elements and blend them with intelligence proper in order to grasp the true nature of the vital activity. We shall no doubt be helped by the fringe of confused intuition which surrounds our distinct, *i.e.* intellectual, representation. What can this useless fringe be, indeed, if not that part of the evolving principle which has not shrunk to the peculiar form of our organization, but has settled around it, unasked for, unwanted? It is there, accordingly, that we must look for hints to expand the intellectual form of our thought; we shall derive thence the impetus necessary to lift us above ourselves."[1] We have already followed the contraction of spirit into

[1] *E.C.* p. 53 (Eng. Tr. p. 52).

intelligence in the case of the individual: the task now lies before us of studying its emergence in the evolution of the human species.

But before we essay to do this it must be clearly demonstrated that a mechanical theory of life—using the word "mechanical" in its widest sense, as applicable to any theory which can be furnished by intelligence in its natural movement—does not present an adequate explanation of the evolutionary process. It is not enough to show that intelligence, in its most perfect production, gives a mechanical representation of reality. The existence of a reality which is non-mechanical in nature and so quite beyond the reach of intelligence must, at least, be indicated. Of course the ultimate court of appeal as to the existence of this reality must be the intuition, but a careful study of the evolutionary process from an empirical point of view may disclose the necessity of postulating a factor in development which differs in nature from the mechanical factors, while it might still be left to intuition to discover the characteristics of this non-mechanical reality. Bergson faces this task. He sets out from the supposition that "a purely mechanical theory would be refutable, and teleology, in the special sense in which we understand it, demonstrable in one aspect, if it could be established that life constructs certain identical mechanisms by dissimilar means on divergent lines of evolution. The force of the proof would, moreover, be proportional to the degree of separation of the lines of evolution chosen, and the degree of complexity of the similar structures which one finds on them."[1]

It is generally urged as an explanation of this fact that the *formation* of identical mechanisms is due to adaptation to environment, and the mode of the process

[1] *E.C.* p. 59 (Eng. Tr. p. 57).

of adaptation has been stated in various ways. According to the Darwinian theory, adaptation consists in the elimination of the unadapted or unfit. A variation comes in, and, if the animal in which it appears has an environment which does not favour it, that animal is gradually eliminated. Thus the action of external environment in directing the course of evolution is purely negative. According to another theory, which is associated with the name of Eimer, adaptation is due "to the positive influence of external conditions which have modelled the organism on their own form. It is by the similarity of the cause that the similarity of the effect will be explained."[1] In its strict form, so far as any meaning can be attached to this as an explanation, the conditions of life are a kind of mould into which life or living matter is gradually forced, and wherever there is a similar mould a similar organism appears. In this case life is acted upon; it is itself passive. If, however, life is regarded as active, then the statement that matter or external conditions model the organism on their own form loses all significance, for life, in its activity, is then capable of creating for itself a form appropriate to the conditions which are made for it, capable of replying, by a calculated solution, to the problem which the external conditions impose.

But, leaving aside general considerations, Bergson takes an actual concrete example. "Here is the eye of a vertebrate and beside it that of a mollusc such as the common Pecten. The same essential parts, composed of analogous elements, exist in both. The eye of the Pecten exhibits a retina, a cornea, a lens, with cellular construction like ours.... Whatever opinion one may hold as to the origin of molluscs, it will be agreed that they and the vertebrates had been separated

[1] *E.C.* p. 62 (Eng. Tr. p. 60).

from their common trunk long before the appearance of an eye as complex as that of the Pecten. How, then, is the analogy of structure to be explained?"[1]

In the first place, can this analogy be accounted for on the Darwinian hypothesis of purely accidental variations? The hypothesis takes two forms, according as we regard variations as being gradual or sudden. On Darwin's view, the general form of the evolution process is that which is accomplished by "very slight variations, which are accumulated by the effect of natural selection."[2] But according to a later theory, sudden variations are the general rule. This theory is associated with the names of Bateson and Hugo de Vries. "A new species, then, is constituted all at once, by the simultaneous appearance of several new characters very different from the old."[3] Now, whichever of these two forms of the theory is accepted, the principle is the same. New species are formed by variations, in the one case sudden, in the other gradual.

The Darwinian hypothesis in its first form breaks down completely. If the slight variation is not co-ordinated with other necessary variations of the organism, it will either hinder the development of the organism or it will be insensible, and simply wait until complementary variations occur. If it hinders development, it is, *ex hypothesi*, eliminated. If it is insensible, and so does not hinder development, it will not prove of any advantage to the organism so long as complementary variations are not produced. But "how can it be supposed" (in the case of an eye, for example) "that the same little variations, in number incalculable, may be produced in the same order on two independent lines of evolution, if they are purely

[1] *E. C.* p. 68 (Eng. Tr. p. 66). [2] *Ibid.* (*Ibid.*).
[3] *Ibid.* (*Ibid.*).

accidental? And how comes it that they have been conserved *by selection* and accumulated on all sides in precisely the same order, seeing that each of them, taken apart, possesses no utility?"[1]

The hypothesis of *sudden* variation presents equally grave difficulties. If the evolution of the eye has taken place in this manner, "how is it that all the parts of the visual apparatus, in this sudden modification, remain so well co-ordinated amongst themselves that the eye continues to exercise its function?"[2] Any variation other than one of the slightest possible degree, unless it were accompanied by the necessary co-ordinated variations, would *hinder* the functioning of the eye. If sudden variation be admitted, it will be necessary to suppose that all the needful co-ordinate changes will simultaneously occur. But even if it is supposed that a fortuitous combination of circumstances may have produced those complementary changes once, how, Bergson pointedly asks, can it be contended that this combination will be repeated in the course of the history of a species "in such a way as to give rise every time, all at once, to new complications, marvellously co-ordinated with one another, situated in the prolongation of earlier complications? How, above all, can it be supposed that, by a series of simple 'accidents,' these sudden variations should be produced, the same, in the same order, implying, in each case, a perfect harmony of more and more numerous and complex elements, on two independent lines of evolution?"[3] The difficulty might be overcome by supposing that "a mysterious principle intervenes in order to guard the interests of the function," but this would involve the giving up of the theory of purely "accidental" variation. This

[1] *E.C.* p. 70 (Eng. Tr. p. 68). [2] *Ibid.* p. 71 (Eng. Tr. p. 69).
[3] *Ibid.* p. 72 (Eng. Tr. p. 70).

mysterious principle, whatever it might turn out to be, is there producing the complementary changes necessary if the function is to persist.

The theory of the accumulation of accidental variations breaks down in both its forms, if it be put forward as an adequate explanation of the evolution process.

But does the hypothesis that variations are produced by the direct action of external conditions afford any explanation of the occurrence of such an organism as the eye on these two diverging lines of evolution, that of the mollusc and that of vertebrates? According to this theory, light has, in both lines of development, acted directly, and has been able "to produce a continuous variation in a constant direction." "The similarity of the two effects would in this case be explained simply by the identity of the cause. The more and more complex eye would be something like the increasingly deep impression of light on a matter which, because it is organized, possesses an aptitude, *sui generis*, to receive it."[1] It is necessary to refer here to the distinction already noted between two kinds of adaptation. In the one case, the matter adapts itself to an environment by simply allowing itself to be moulded by that environment. Adaptation is here passive, and purely mechanical. In the other case, the matter reacts upon its environment, and in the circumstances issues in a form by means of which the problem laid before it can be solved—in this case, the matter is active. It would seem that in the earlier stages of the evolution of the eye the protoplasm received passively an impression from light. But, Bergson holds, living matter appears to have no other means of turning circumstances to account than that of passively adapting itself to them to begin with. "Life proceeds by insinuation." In

[1] *Ibid.* p. 76 (Eng. Tr. pp. 73-74).

the formation of the eye, however, life turns circumstances to account in a most complex manner. Not merely is an organ produced which can function as a seeing organ, but very precise relations are established between this organ and the apparatus of locomotion. "Our eye turns light to account in that it permits us to utilize by movements of reaction the objects which we see to be advantageous, to avoid those which we see to be harmful."[1] Now, it will scarcely be maintained that the influence of light has produced a whole "nervous system, a muscular system, a bone system, all of which, in the case of vertebrates, are in continuity with the visual apparatus." The case for the view which Bergson is examining becomes still weaker when it is considered that the embryo of the mollusc and that of the vertebrate are dissimilar in their chemical composition. It would seem, indeed, as if light, acting upon chemically different substances, had produced the same effect in both cases. Further, examination of the formation of an eye reveals the fact that the same result is reached in the case of the mollusc and the vertebrate respectively by entirely different modes of evolutionary process. Bergson maintains, in the light of these facts, that mere external impressions are not adequate to explain the formation of such an organ as the eye on diverging lines of evolution. The convergence of efforts involved, the complementary evolution of co-ordinate elements, is inexplicable on any mechanical theory, whether it be the Darwinian or neo-Darwinian, the theory of sudden variations, or the theory of mechanical composition between external and internal forces.

One other hypothesis remains, that of neo-Lamarckism. According to this theory, the variation

[1] *É.C.* p. 78 (Eng. Tr. p. 75)

which ends in producing a new species "arises from the effort of the living being to adapt itself to the conditions in which it must live. This effort may be only the mechanical exercise of certain organs, mechanically provoked by the pressure of external circumstances. But it may also imply consciousness and will, and it is in this last sense that one of the most eminent representatives of the doctrine, the American naturalist Cope, seems to understand it."[1] The appearance of identical organs on diverging lines of evolution is explained by the fact that "the same effort to turn the same circumstances to account issues in the same result, especially if the problem propounded by the external circumstances is such as to admit of only one solution."

In what sense is the word "effort" to be taken? If the explanation is to be satisfactory it cannot be the mere effort of exercise, as the neo-Lamarckians seem to suppose. Such effort never produces complication of organs; it may increase the *strength*, but not the *form* of an organ. But the evolution of an eye involves complication upon complication, an enormous number of them, and all marvellously co-ordinated. The effort implied must be one much more profound and psychical than that of physical exertion. This necessity becomes pressing when the cause of "regularly hereditary variations" is considered. Use in the lifetime of an individual may perfect in some degree the visual organ, but will this make any difference to the descendant? Bergson holds that experience, observation of facts, shows us that transmission of acquired characteristics, is, if it occurs at all, the exception and not the rule. "How can hereditary transmission be expected to develop an organ such as the eye? When one thinks of the enormous number of variations, all pointing in

[1] *E.C.* pp. 83 and 84 (Eng. Tr. p. 81).

the same direction, which it is necessary to suppose accumulated on one another in order to pass from the pigmentary spot of the infusorium to the eye of the mollusc and the vertebrate, one asks how heredity, such as we observe it to be, could ever have determined this heaping-up of differences, supposing that individual efforts were able to produce each of them in particular. In fact, neo-Lamarckism appears no more capable of resolving the problem than do the other forms of evolutionism."[1]

But while each of these theories fails to give an adequate explanation of an admitted fact, each of them, nevertheless, contains a positive element of truth. "The neo-Darwinians are probably right when they teach that the essential causes of variation are differences inherent in the germ of which the individual is the bearer, and not the actions of this individual in the course of its career." They seem to be wrong in holding that the differences inherent in the germ are purely accidental. This defect is remedied by those who maintain the theory of sudden variations, and who contend that the tendency to change is not accidental, though the change itself might be. Eimer goes a step in advance when he argues that the change is due to a continuous variation in a definite direction. But the members of this school are wrong when they maintain that physical and chemical combinations of causes are sufficient to secure this continuous variation in a definite direction. A distinctly progressive step is made when certain neo-Lamarckians have recourse to a cause of psychical order. But even neo-Lamarckism is insufficient as an explanation, for it confines this cause to the conscious effort of the individual, and this effort is not sufficient to explain the complex combinations

[1] *E.C.* pp. 91 and 92 (Eng. Tr. p. 89).

of complex organisms which appear in the course of the evolution of, *e.g.*, an eye. Besides, it rests ultimately upon a theory of use-inheritance, or transmission of acquired characters, which is verifiable in only a very few exceptional cases. "A hereditary change in a definite direction, which goes on accumulating and compounding with itself in such a manner as to construct an increasingly complicated machine, must, without any doubt, be related to some species of effort, but to a profounder effort than that of the individual—an effort more independent of circumstances; common to the majority of the representatives of one and the same species; inherent in the germs which they carry rather than in their own substance, and assured thereby of being transmitted to their descendants." [1]

Bergson thus leads up to, and finds the way clear for, his own theory. He conceives it necessary to postulate an "*élan originel* of life, passing from one generation of germs to the following generation of germs by the intermediation of developed organisms which form the link of union between the germs." [2] On such an hypothesis the fact of identical organs on diverging lines of evolution may be explained. The eye appears as an infinitely complicated structure with a simple function. Both a mechanical theory and a teleological theory—*i.e.* any theory of intelligence—seek to show how the parts, in their almost infinite multiplicity, have been added bit by bit, and co-ordinated. Bergson gives up this project altogether, and maintains that this multiplicity, far from somehow becoming organized, is due entirely to our analysis. He substitutes the hypothesis that the *élan originel*, finding itself opposed by matter, makes an effort to overcome the obstacle, and it does this by an indivisible act. The result is the

[1] *É.C.* p. 95 (Eng. Tr., p. 92). [2] *Ibid.* (*Ibid.*).

visual apparatus.[1] This act, because it *is* indivisible, explains the fact that when we analyse the organized visual apparatus, the order of the parts is found complete and perfect. According to the greater or less intensity of the *élan*, the eye constituted will be "the simple pigmentary masses of an inferior organism, or the rudimentary eye of a Serpula, or the already differentiated eye of the Alciope, or the marvellously perfected eye of a bird. But all these organs, of very unequal complication, will necessarily present an equal co-ordination. That is why the distant removal of two animal species from one another does not make an essential difference. If, on both sides, the progress towards vision has gone equally far, the visual organ will be the same in both cases, for the form of the organ merely expresses the measure in which the exercise of the function has been obtained." [2]

An empirical study of the evolution process thus reveals the inadequacy of a mechanical explanation of that process, and leads Bergson to the postulate of a factor, which is beyond the grasp of intelligence. "This *élan*, keeping itself along the lines of evolution, among which it is divided, is the primary cause of variations, of those, at least, which are regularly transmitted, which take on additions, which create new species. As a rule, when species have begun to diverge on setting out from a common source, they accentuate their divergence in proportion as they progress in their evolution. However, at definite points, they might, and even must, evolve identically, if one accepts the hypothesis of a common impetus." [3]

The nature of this *élan* of life, inscrutable to intelligence, is directly apprehended in an effort of sympathetic

[1] V. *E.C.* pp. 102 and 103 (Eng. Tr. pp. 99-100).
[2] *E.C.* p. 109 (Eng. Tr. p. 101). [3] *Ibid.* p. 95 (Eng. Tr. p. 93).

insight or intuition. The philosopher must rid himself of all retrospective vision, and so disentangle himself from the intellectual categories. He must seek to *live* the varying degrees of reality without reflecting, and the feeling of the actual progress of living conditions a direct knowledge of the *élan*, which is at the heart of living things. "Our consciousness must detach itself from that which has become, and attach itself to that which is becoming. It is necessary that, by turning and twisting on itself, the faculty of *seeing* should become identified with the act of *willing*—a painful effort, which we may make abruptly by doing violence to our nature, but which we cannot maintain beyond a few instants. In the free act, when we contract all our being in order to impel it forward, we have the more or less clear consciousness of motives and mobile powers, and even, strictly speaking, of the becoming by which they are organized into an act. But the pure will, the current which traverses this matter in communicating life to it, is something which we feel with difficulty, of which, at most, we gain a passing glimpse. Should we attempt to place ourselves in it, be it for only an instant, even then it is but an individual, fragmentary will which we apprehend. In order to arrive at the principle of all life, as also of all materiality, we should have to go much further. Is this impossible? No, certainly not! The history of philosophy bears witness that it is not. There is not any lasting system which is not, in some at least of its parts, vivified by the intuition."[1] In this way the hypothesis of a psychical force suggested by an empirical study of evolution is verified by intuition. There is, then, a reality beyond the reach of intelligence, and the degradation of this psychical reality into intelligence

[1] *E.C.* pp. 258 and 259 (Eng. Tr. p. 251).

may be followed. But there is still one more preliminary step. The origin and nature of matter must be dealt with, for intelligence has formed itself upon the model of matter.

A speculative knowledge of matter can be arrived at only by means of intuition. Such an intuition lies *de jure* at the basis of our perceptual knowledge, for perception, in its simplest form, is "pure" perception, the "immediate and instantaneous intuition of matter" which would be experienced by "an adult and formed consciousness, but a consciousness confined to the present, and absorbed, to the exclusion of all else, in the task of moulding itself on the external object." This "pure" perception is more nearly approximated according as descent is made in the animal scale. In the case of man it has become overlaid with memory elements, with the result that the most direct perception of a quality of matter is the compression, so to speak, of an infinite number of material moments into one moment of our consciousness. If, then, an immediate knowledge of matter is to be acquired, the contribution of memory to normal perception must somehow be eliminated.

In the next place, all mapping out of matter into objects with clearly-defined contours is relative to our faculty of perception. These objects, as distinct bodies, have no existence in matter. They appear only because that part of matter which does not interest our needs, and, more generally, our functions, is discarded in the process of perception, and the parts of matter thus isolated by being severed from that which continues them in all directions appear to the percipient as definitely outlined bodies. But their existence as bodies is due to a negation of matter rather than to anything positive in themselves. Science, in one of its movements at least, pushes still further

this artificial isolation begun by normal perception, for it decomposes objects into molecules, atoms, or something else, which have no more reality than the objects themselves. The artificial boundaries between object and object must be removed if a pure disinterested knowledge of matter is to be acquired.

But still another correction of our ordinary view of matter is necessary. This follows as a natural consequence from the previous correction. It is no longer legitimate to speak of local changes of bodies, since bodies do not exist. The movements which we interpret as changes of place must be regarded as "indivisibles which occupy duration, suppose a 'before' and an 'after' (not merely a 'here' and a 'there'), and link together the successive moments of time by a thread of variable quality which cannot be without analogy to the continuity of our own consciousness."[1] The fact of qualitative movement redeems the material world from pure spatiality, and gives it duration, however feeble, so that from this point of view it must be regarded as having a history, and must not be thought to consist in a succession of instantaneous creations, however nearly it may approximate to that.

If these corrections are made, the figure, magnitude, and position of bodies melt away, and what remains is described by one of Bergson's disciples as "a moving continuity, a vortex of images which dissolve by insensible degrees into each other." Further, the sensible qualities assume their natural and uncondensed nature, and "though not vanishing, are spread out and diluted into an incomparably more divided duration." By thus undoing what the faculty of perception has done in the interests of bodily activity, by removing the definite contours of isolated bodies or of molecules,

[1] *M. et M.* p. 226 (Eng. Tr. p. 268).

by withdrawing the power of memory, which condenses elementary movements into a solid mass which we call a sensible quality, by restoring to movement its real nature—*i.e.* by withdrawing attention from the mathematical points through which we have conceived it as passing, and regarding motion in its *mobility*, as it is directly revealed to consciousness—by abstracting from space (the schema of divisibility furnished by intelligence in its practical function) and from homogeneous time (the abstract schema of succession in general), we may gain a fleeting view of matter in its absolute essence. This reminds one irresistibly of James' "parturient mountain which delivered itself of a mouse." If, however, it be remembered that such an intuition is not to be gained in an arbitrary way, but has behind it the travail of mind of whole generations of scientists, and that what it is supposed to yield in this fleeting view is really the scientific ideal of a material universe which is continuous throughout, and in which there is automatic and equal reaction of part on part, then the apparent inadequacy of the end achieved to the effort expended disappears. But, at the same time, the need for an intuition also seems to disappear, the rational synthesizing power of the scientific mind being the only necessary presupposition of such knowledge of matter.

The feature of the intuition of matter which is of outstanding importance for our purpose is that matter has duration, but duration so feeble that its existence approximates to that which Descartes conceived the existence of the world of extension to be—an existence created at every instant through the concourse of God. Matter has not, however, reached this limit. Nor is it absolutely extended. Its parts, though tending towards mutual externality, completely reciprocal independence,

still exhibit reciprocity of action and reaction. Matter, that is to say, approximates towards Descartes' *res extensa*, but never becomes identical with it. Here Bergson approaches very near to that monistic spiritualism to which reference has already been made. Spirit is identical with duration, and matter has duration, consequently matter itself differs from spirit only in degree. But since its duration is so much feebler than ours, Bergson concludes that there is in the universe a movement opposed to the evolution of spirit, the movement, namely, towards space. This movement has already been observed in the individual psychical life, where it was seen that, when spirit is directed towards action on matter, the true type of causality is found in the progress from pure spirit to juxtaposed images—*i.e.* in an undoing of the progress of spirit. By intellectual sympathy a similar movement towards disintegration may be discerned in the universe at large.

The tendency of matter towards disintegration is partially expressed in the second law of thermo-dynamics—the most metaphysical, Bergson thinks, of all physical laws—which, released from the mathematical form which has been imposed upon it *ab extra*, expresses essentially that "all physical changes have a tendency to degrade themselves into heat, and heat itself tends to be dissipated in a uniform manner amongst bodies." That is to say, this law indicates the direction of the movement of matter—towards a relative stability of elementary changes which indefinitely repeat one another. Matter is, then, "a flux rather than a thing," but its flow is in the opposite direction to that of spirit. The flux of spirit is creative evolution; the movement of matter is towards stability, towards a present which is unceasingly renewed.

Further, creation of matter is quite conceivable.

Bergson undertakes the analysis of the idea of disorder, understood as an absence of order, with the purpose of demonstrating that reality "can pass from tension to extension, from freedom to mechanical necessity, by way of inversion"; that "the geometrical order has no need of explanation, being purely and simply the suppression of the inverse order"; and with that end in view he considers it necessary to establish the fact that "suppression is always a substitution, and is necessarily conceived as such." The idea of disorder, as currently accepted, expresses fundamentally the disappointment of a mind which, when it seeks a certain kind of order on certain occasions, does not find it. The mind expects to discover a kind of order in which alone, for the moment, it is interested. It does not meet with *that* order, and it affirms that *no* order is to be discovered there. But this is purely a practical assertion: for our immediate purposes there is no order there. Theoretically, however, it may become necessary to admit that there is *some* order, although it may be of a kind different from that which we expected to meet. In fact, "the idea of disorder denotes the absence of a certain order, but *to the advantage of another* (with which we were not concerned); but as it is applied to each of the two in turn, and as it even unceasingly goes and comes between the two, we grasp it *en route*, or rather *en l'air*, and we treat it as if it represented, no longer the absence of indifferently the one or the other order, but the absence of the two together—a thing which is neither perceived nor conceived, a simple verbal entity."[1] There is no meaning, then, in saying that if order is suppressed, disorder is substituted: all that one is warranted in affirming is that if one kind of order disappears, another is substituted. Bergson's position is that within

[1] *E.C.* p. 242 (Eng. Tr. p. 234).

order there are two kinds of order which *oppose* one another, and that the suppression of the one involves the substitution of the other. But this is quite unconvincing as an argument resting solely upon his analysis of the idea of disorder. All that can be concluded from that analysis is that order always exists in experience, so that if one species of order is not present to consciousness we may be sure that some other species is there—not necessarily an order of an opposite kind to that sought, but certainly one of either a higher or a lower grade. In using the word "suppressed," Bergson is foreclosing the question, for the matter to be decided is whether the one kind of order is the suppression of the other, or whether there are not degrees of reality, the higher degree subsuming but not suppressing the lower, the lower being, in such circumstances, a stage in the ascent to the higher, and not the interruption of it. The fact is that the conception of these two opposing tendencies in the universe is reached on analogy with the movements which Bergson has already observed in the individual consciousness. The natural direction of mind involves interpenetration of parts, continuous creation, free activity, but as soon as this movement is interrupted the opposing movement towards extension, repetition, necessity, begins. This principle is projected into the cosmic organism, and is found to make the creation of matter conceivable. It is conceivable that an interruption of the movement of the creative force immanent in the universe may take place, and immediately, *ipso facto*, the inverse movement towards materiality is substituted.

It is possible, as we have seen, to gain by a painful effort of intuition a fleeting vision of this "pure will" or "consciousness" which communicates to us the impulse to live and to endure. We may feel it acting, in a

fragmentary, individualized, partially thwarted way, in ourselves, on the occasion of our freest acts. The artist may feel it operating in himself as his ideal creations flash into consciousness, and the metaphysician may, by a supreme effort of concentration on the productions of philosophers, receive the impulse which vitalized their systems, and feel it stir within himself. In each case, this "will" is felt to be a perpetual growth, or being which continually adds to itself. Now, imagine that a momentary addition to this cosmic will becomes somehow interrupted, partially dissociated from the onrush of its source. At that precise moment, in virtue of that very interruption, the creation of a material world takes place.

In giving an account of this flight of cosmic speculation it is impossible to avoid metaphor. Bergson cheerfully accepts the situation, and his fertile imagination revels in a wealth of symbolic expression.[1] It is not necessary to reproduce these illustrations. We have gone far enough to see what Bergson means when he argues that the order in matter is the negation of the "willed" order; that the "physical is merely the psychical inverted"; that matter is, so to speak, "ballasted with geometry"; and that there is nothing positive in the mathematical order towards which it descends.

The problem which Bergson has faced in this account of the nature and creation of matter may be connected with that which Fichte encountered at the crucial stage of his thought. In developing one aspect of the thought of Kant, Fichte reached the position that all reality is the product of a fundamental (*ursprünglich*) activity. In self-consciousness, in the feeling of the activity of the self, he discovered the clue to the nature of all

[1] V. *E.C.* pp. 260-270 (Eng. Tr. pp. 249-259).

reality. I *am*, I *exist*, only as I *act*. But a difficulty arises when the passage is attempted from the "I" as active "subject" to the "not-I" or "object" which palpably limits the activity of the subject, and this difficulty was never entirely overcome by Fichte, in spite of his argument that the activity of the subject demands, in order to release itself, an object which it must overcome, and that, consequently, it is necessary that it should produce a limiting reality. Fichte has failed, and necessarily failed, to account for the first *Anstoss* which might cause the development which would issue in an objective world clearly differentiated from the active "I," and in the emergence of pure reason as an instrument of the activity of the *ego*. Bergson has discovered the clue to the nature of reality in a supra-personal activity, the essence of which is its creative movement, but experience points to the limitation of such a pure will. The difficulty is to account for the origin of this limiting matter. Bergson, as we have just seen, argues that it is but the inversion of the free activity of supra-personal spirit, and that intelligent personality has appeared in the course of the effort of the spiritual power to re-assert itself, and overcome the interruption which it has encountered. But the supreme difficulty is to account for the primary interruption. Why should the free activity ever have become inverted? Fichte argued from the fundamental nature of the transcendental "I" to the necessity of the production of a limiting objective world, but even that line of argument is not open to Bergson, and it will have to be considered at a later stage whether this thought, when stripped of its metaphorical garb, is not seen, at this point, to present insuperable difficulties.

The desired point has now been reached at which

the evolution of intelligence in the race may be followed. Imagine the original spiritual *élan* confronted by matter, an obstacle which it must overcome if it is to follow its natural direction. It is almost held in equilibrium by the opposing tendency, but it is necessary to imagine that it has a slight advantage. How will it proceed to follow up this advantage, and overcome the obstacle which matter places before it? An empirical study of the evolution process shows that spirit has "compelled matter into organization, but its movement has thereby been both infinitely retarded and infinitely divided. On the one hand, in fact, consciousness has had to fall asleep, like the chrysalis in the cocoon where it is preparing its wings; and on the other hand, the numerous tendencies which it embraced have been distributed amongst divergent series of organisms, which, moreover, have externalized those tendencies in movements rather than internalized them in representations. In the course of this evolution, while some slept more and more deeply, others became more completely awake, and the torpor of the former was useful to the activity of the latter. But the awaking might be accomplished in two different ways. *Life*, i.e. *consciousness*, *launched through matter*, *fixed its attention either on its own movement or on the matter through which it passed. It was thus orientated either in the direction of intuition or in that of intelligence....* Consciousness determining itself in intelligence, *i.e.* concentrating itself, to begin with, on matter, seems thus to become externalized in relation to itself: but just because it adapts itself to outside objects, it succeeds in circulating amongst them, in avoiding the barriers which they oppose to it, in indefinitely enlarging its domain."[1]

It is very necessary to understand Bergson here.

[1] *E.C.* pp. 197-198 (Eng. Tr. p. 192).

Thought, he claims, is an activity, a movement. He means precisely what he says. This psychical force at the basis of the evolution of life is an activity. It may be conscious activity, or it may be unconscious activity. Bergson emphasizes the aspect of *activity*, and does not here, at any rate, concern himself much about its consciousness or unconsciousness. Now when, as we have supposed, this activity is met by an activity of opposite nature, there may be a kind of compromise, as in the case of plants ; or the activity which is thought, or will, or freedom, or the *élan* of life, may gradually overcome the activity which is matter, or materiality, or movement towards perfect equilibrium, or necessity. An organism is formed, a *modus vivendi* between the two activities. To begin with, the activity which is mediated through the organism may be scarcely more than automatic, as in the case of the amoeba. But as an ascent is made in the scale of living beings, involving a growing conquest of spirit over matter, action becomes chosen, free, and finally clearly conscious. The physiological condition of free activity, of the free passage of the *élan* of life, is found in the sensori-motor nervous system, with its in-leading roads or canals (afferent nerves), its out-leading roads or canals (efferent nerves), and the cross-roads, so to speak, between the two, the sensorial centres. The in-leading and the out-leading roads canalize an activity or movement which would otherwise be diffused, and the existence of the cross-roads makes possible a choice of direction for the activity. With this possibility of choice consciousness appears.

The organism, is, then, a real reservoir of indetermination. "If we agree to describe as the 'sensori-motor nervous system,' the cerebro-spinal nervous system, together with the sensorial apparatus in which

it is prolonged, and the locomotor muscles which it governs, it might be said that a superior organism is essentially constituted by a sensori-motor nervous system installed in a digestive, respiratory, circulatory, secretive, etc., apparatus, whose business it is to repair, cleanse, and protect it, to create with it a constant internal medium, finally, and above all, to pass on to it potential energy which will be converted into energy of locomotion."[1] As the nervous system develops, the more free does the activity of the animal become, and the more fully is the determination of the opposing activity, that of matter, surmounted. But the freedom which the organism conditions is not absolute; the contrary movement manifests itself persistently. "Our freedom, in the very movements by means of which it declares itself, creates nascent habits which would stifle it, if it did not renew itself by constant effort. Automatism lies in ambush for it."[2]

It must be distinctly borne in mind that at this stage we are dealing merely with psychical activity, and that all movement is, on Bergson's view, psychical in nature. Further, this psychical activity is conceived of as striving to obtain certain things from brute matter. It is, besides, an activity limited in its power. We have seen that in its action upon matter it has produced an organism. Now it has choice between two ways of continuing its conquest over matter. It may do so *immediately*, by creating an *organized* instrument with which to work, or it may do so *mediately*, in an organism which, although it does not possess naturally the required instrument, will itself manufacture it by fashioning inorganic matter to its needs. It appears to have made the former choice in the line of development which ends

[1] *E.C.* p. 136 (Eng. Tr. p. 131). [2] *Ibid.* p. 138 (Eng. Tr. p. 134).

in the insects, and the latter in that which has terminated in man. In the case of the insects, the organism has a variable, sometimes considerable, number of appendices, each of which has its special form of motor activity. The activity of the organism of the insect is but a continuation of the activity which has produced the organism. This activity Bergson calls instinct. In the case of vertebrates, on the other hand, the activity "has been concentrated on two pairs of members, and these organs accomplish functions which depend much less completely on their form. The independence becomes complete with man, whose hand may execute any work whatever."[1] Man, of all the members of the animal kingdom, is the most inadequately furnished with *direct* natural means of protecting himself against his enemies, against cold and hunger. This insufficiency, Bergson says, acquires, when we attempt to decipher it, the value of a prehistoric document. It is the definite dismissal which instinct receives from another from of psychical activity—that which issues in works of construction, and which he terms intelligence. From this point of view, man might more fittingly be called *Homo Faber* than *Homo Sapiens*. "Instinct (in its essential nature) is a faculty of utilizing and even of constructing organized instruments. Intelligence (in its essential nature) is the faculty of constructing and employing unorganized instruments."[2] These two, instinctive activity and intelligent activity—or immediate activity and mediate activity—represent two divergent solutions of the problem which presented itself to the original psychical activity in its action upon matter. The problem was "to create with matter, which is necessity itself, an instrument of liberty; to construct a machine

[1] *E.C.* p. 144 (Eng. Tr. p. 140). [2] *Ibid.* p. 152 (Eng. Tr. p. 146).

which would triumph over the mechanical, and to make use of the determinism of nature in order to break through the meshes of the net which it had spread."[1] To achieve this conquest it was necessary that the psychical activity should, for the most part, adapt itself to the habits of matter, and concentrate all its attention on them; in short, that it should determine itself more specifically in intelligence.

But it is as a faculty of knowledge that we are accustomed to regard intelligence and perhaps instinct also. Bergson says, however, that knowledge and action are here two aspects of one and the same faculty. Knowledge is simply conscious activity. Before proceeding to elucidate the point, it might be well to dwell for a moment on the aspect of psychical activity which we above deliberately set aside—that of consciousness. Bergson distinguishes between two species of unconsciousness—that which consists in a *no* consciousnes s and that which results from an *annulled* consciousness. "No-consciousness and annulled-consciousness are both equal to zero; but the first zero expresses that there is nothing; the second, that one has to deal with two equal quantities of contrary direction which balance and neutralize each other. The unconsciousness of a falling stone is a no-consciousness; the stone has no feeling of its fall. Is it the same with the unconsciousness of the instinct in the extreme cases in which instinct is unconscious? When we accomplish mechanically a habitual action, when the somnambulist acts automatically in his dream, the unconsciousness may be absolute; but it is because, this time, the representation of the act is held in check by the execution of the act itself, which is so perfectly similar to the representation and fits so exactly into it, that consciousness can no longer burst

[1] *E.C.* p. 286 (Eng. Tr. p. 278).

forth. *The representation is obstructed by the action.* The proof of this is, that if the accomplishment of the action is arrested or hindered by an obstacle, consciousness may arise. It was present, then, but neutralized by the action which fulfilled the representation. The obstacle has created nothing positive; it has simply created a void, it has caused an obstruction. The inadequateness of the act to the representation is precisely what we call consciousness. If one were to examine this point thoroughly, one would find that consciousness is the light immanent in the zone of possible action or potential activity which surrounds the action effectively accomplished by the living being. It signifies hesitation or choice. When many actions, equally possible, are outlined, without any real action taking place, consciousness is intense. When the real action is the only possible action, consciousness becomes annulled consciousness. Representation and knowledge do not less exist in the latter case, if it be established that one finds there a totality of systematized movements, the last of which is already prefigured in the first, and that consciousness would, besides, gush out if an obstacle were encountered."[1]

There is a distinction to be made, then, between unconscious, *acted* knowledge, and conscious, *thought* knowledge. This distinction occurs again and again in Bergson's thought. Bearing in mind this idea that knowledge is fundamentally activity, let us now return to the point upon which we were engaged—viz. that knowledge and action are but two aspects of the same faculty. We have seen that instinct is the faculty of making use of an organized instrument which simply continues its own activity. Its activity implies the potential or unconscious knowledge of the instrument

[1] *É.C.* pp. 156 and 157 (Eng. Tr. p. 151).

and of the object to which it is applied. It has the innate, *unconscious* knowledge of a thing. It *acts* this knowledge. But intelligence, with which we are more particularly concerned for the present, is "the faculty of constructing unorganized, *i.e.* artificial, instruments. If, through it, nature fails to endow the living being with the instrument which will serve it, she does so in order that the living being may, according to circumstances, vary its method of construction. The essential function of the intelligence will then be to distinguish" (either by acted or conscious knowledge) "in any circumstances whatsoever, the means of getting out of a difficulty. It will seek what may serve it best, *i.e.* whatever will fit precisely into the proposed framework. It will bear essentially on the relations between the given situation and the means of utilizing it. It will possess, then, an innate tendency to establish relations. This tendency implies the natural knowledge of certain very general relations, veritable *stuff*, which the activity peculiar to such intelligence will fashion into more particular relations."[1] These general relations which intelligence, regarded as an activity, naturally employs, are, *e.g.*, relations of equivalent to equivalent; of contained to containing; of cause to effect—all of which may possibly be subsumed under the one form or conception, space. Intelligence may not have conscious knowledge of these relations, but it has, Bergson would say, implicit, unconscious knowledge of them. They are regulative principles of the activity of an intelligent being. It *acts* these principles. The activity of *all* intelligent beings, *i.e.* of all the vertebrates, is regulated by them, and man most particularly, in his manufacturing activity, proceeds upon these general relations, which, upon reflection, appear to him as

[1] *E.C.* p. 163 (Eng. Tr. p. 159).

necessarily true. These fundamental conceptions or principles may also be regarded as constituting the framework of an ideal material or spatial world.

Bergson does not mean here what Spencer would have us believe—that the psychical activity has had imprinted upon it, as a result of its contact with matter, the general characteristics of matter. His position is that the psychical activity which threads its way through matter has chosen to adopt the form of matter, to insinuate itself into matter, in order that it might ultimately conquer that with which it has, so to speak, ingratiated itself. It is, Bergson says, life looking backwards, fascinated by the contemplation of inert matter; externalizing itself in action, as the thought of the somnambulist is externalized in action; adopting in principle, so as to direct in fact, the procedure of unorganized nature.

Since in its action upon matter this psychical activity which we call intelligence has to choose again and again the place and the time at which it will construct an organized instrument, the knowledge implied in this activity will be more and more *thought* and conscious, rather than *acted* and unconscious. The consciousness of matter will first arise in the perception of things, and later, when intellect speculates (as a luxury, because it possesses a surplus of force of which to dispose), it will, assisted by language, become conscious of its own activity—not in the perception of things, but in the representation of the acts by which spirit, as intelligence, fixes itself upon things. The intelligence, however, follows the habits which it has contracted in its dealing with matter, and it represents its own activity under the form of discontinuity, in clear and distinct concepts. "The concepts are, in fact, external to one another as well as to objects in space.

And they have the same stability as the objects on the model of which they have been created. They constitute, reunited, an 'intelligible world,' which resembles, in its essential characteristics, the world of solids, but the elements of which are lighter, more diaphanous, more easily handled by the intelligence than the pure and simple images of concrete things."[1] They are mere symbols. In manipulating these symbols, the intelligence follows certain rules, which, when systematized, constitute our logic. "As these symbols are derived from the consideration of solids, as the rules of the composition of these symbols amongst themselves scarcely do more than translate the most general relations between solids, our logic triumphs in the science which takes the solidity of bodies as its object, *i.e.* in geometry. Logic and geometry reciprocally engender one another."[2]

This sketch of the development of life into intelligence, has had as its aim to show that intelligence is an activity, primarily directed upon matter, temporarily inverted in order that it might, ultimately, pursue its course of freedom; that it endeavours to construct unorganized instruments by juxtaposing part to part in certain relations to each other; that it is constructed to this end, being reciprocal to matter; and, finally, to suggest that if it deals with creative psychical activity it does so only symbolically.

To sum up: if intelligence be regarded from the point of view of action, and no longer as a speculative faculty, it has for its primary object the unorganized solid. It represents clearly only the discontinuous; it substitutes for real movement juxtaposed points which constitute a practical equivalent of the real movement; it attaches itself to the stable and immov-

[1] *E.C.* p. 174 (Eng. Tr. p. 169). [2] *Ibid.* (*Ibid.*).

able; it is characterized by an unlimited power of decomposing according to any law whatever, and of recomposing into any system whatever. Finally, it is inherently incapable of representing as they are life and consciousness, and when it, developed as it has been for action upon matter, transports itself into the domain of speculation, the knowledge which it furnishes will be merely symbolic. Traces of instinct remain in the most fully developed intelligence, stray intuitions of life and consciousness come to all, but these are immediately intellectualized and forced into the framework of a faculty constructed to enclose the inert and dead.

Thus the evolution of intelligence in the history of the race is exactly similar to the intellectual development of each individual within the whole. In the case of human individuals, spirit is materialized and intellect appears in order that chosen, free action may be achieved by the organized body. Intellect is simply a stage of spirit in the progress of free activity. In the case of the larger organism the originally undivided psychical impulse has adapted itself to matter in the manner which has just been observed, in order that, ultimately, its conquest over matter may be secured, and its free activity released. Matter does not determine the form of intelligence, as Spencer would have us believe, neither does the intelligence impose its form upon matter, as Kant argued, nor have matter and intelligence been regulated upon one another by some pre-established harmony, as Leibnitz contended, but "intelligence and matter have been progressively adapted to one another, and have ended in a common form." Spirit has, so to speak, voluntarily, purposefully, and cunningly adopted the form of matter. But its temporary degradation has been real and thorough.

Neither the order in matter nor the form of the human intelligence has anything positive in it. Both are due to a similar interruption of a similar activity. The order of a rationalized, coherent system of thought is simply the order of nature introduced into spirit, and the order in matter is nothing else than intelligence. Spirit can discover and overcome the order in matter only by means of its own degradation into matter or intelligence, only by stooping to conquer.

It may pertinently be asked why, if intelligence has thus adapted itself to matter, an intuition of matter is necessary at all. Further, if spirit, in becoming intelligence, has adopted the rhythm of matter, and if matter, as it actually exists, has not reached the utmost limit to which it is moving, then the difference between matter and spirit is not a difference in kind but one of degree, and since intelligence is capable of knowing spirit in its lowest degree (*i.e.* matter as it actually exists) it does not seem necessary to postulate, even for the knowledge of spirit, a faculty of another kind than intelligence, for intelligence, by its contractions and expansions, could sympathize with reality in all its degrees. Bergson's reply would be that, in a sense, intelligence has "out-Heroded Herod." Once put in the way of descent by its contact with matter, it outstrips matter itself, and, in the form of the geometrical intelligence, it has actually completed the movement and reached the limit towards which matter only tends. Intelligence aims at securing the most perfect insertion of our body into its material environment; it is essentially constructed for action. In action, it is the end to be achieved on which we fix our attention. The procedure of intelligence is saltatory, as opposed to that of pure cognition, which, according to James' familiar term, is "ambulatory." In its normal course,

intelligence leaps across intervals from a terminus *a quo* to a terminus *ad quem*, and the conceived empty medium is space. "In order that our activity may leap from an *act* to an *act*, it is necessary that matter should pass from a *state* to a *state*, for it is only by the insertion of a result into a state of the material world that action can be accomplished."[1] The material world does not present itself immediately to us as so many isolated states, but intelligence, in its practical procedure, supplies a medium in which it regards matter as spread out, and since it views matter as partaking of the nature of this space, it can now divide it into any number of parts whatever. "The perceiving mind marks out divisions in the continuity of the extended, simply following the suggestions of our requirements and the needs of practical life. But in order to divide the real in this way, we must first persuade ourselves that the real is divisible at will. We must, then, spread beneath the continuity of sensible qualities, *i.e.* beneath concrete extensity, a net whose meshes may be altered to any shape whatsoever, and become as small as we please. This substratum which is merely conceived, this wholly ideal diagram of arbitrary and indefinite indivisibility, is homogeneous space."[2] In a word, the practical function of intelligence has impelled it to complete the movement towards dissolution, immobility, homogeneity, which matter has partially accomplished. This fact colours all the subsequent work of intelligence. Perception, *e.g.*, does not carve reality where the joints are. Its divisions are arbitrary; they are too precise, "always subordinated to practical exigencies, and consequently always subject

[1] *E.C.* p. 324 (Eng. Tr. p. 316).

[2] *M. et M.* p. 234 (Eng. Tr. p. 278). V. also *E.C.* pp. 220-221 (Eng. Tr. pp. 211-14).

to revision." "Science, which aspires to take a mathematical form, accentuates unnecessarily the spatiality of matter: its diagrams are, as a rule, too precise, and require continual re-shaping."[1] Laws in mathematical form will never be perfectly applicable to matter.

But, it may still be said, there are laws of nature other than those which appear in strictly mathematical form; may not these express the nature of matter in its concreteness? The essence of Bergson's reply to this is that all such laws are the result of a fragmentary view of the universe. "No one of these, taken separately, has any objective reality. It is the work of a scientist who has considered things from a certain point of view, isolated certain variables, applied certain conventional units of measurement."[2] Again: "It would be necessary, in order that a scientific theory should be definitive, that the mind should embrace *en bloc* the totality of things, and place them in exact relation the one to the other: but, in reality, we are obliged to put the problems one by one, in terms which are consequently provisional, so that the solution of each problem will need to be indefinitely corrected by the solution which will be given of the subsequent problems, and science, in its *ensemble*, is relative to the contingent order in which the problems have successively been stated."[3] In other words, all such laws are true only at a certain level of scientific knowledge, true of the part of the universe which has come within developing human experience, and so, in a sense, only provisionally true. They are, of necessity, more or less conventional. "A law in mathematical form (and all laws of positive science are basally mathematical) expresses that a cer-

[1] *E.C.* p. 225 (Eng. Tr. p. 218). [2] *Ibid.* p. 237 (Eng. Tr. p. 230).
[3] *Ibid.* p. 225 (Eng. Tr. p. 218).

tain magnitude is a function of one or other variables conveniently chosen. Now, the choice of variable magnitudes, the distribution of nature into objects or into facts, involves something contingent and conventional."[1] It would be absurd to imagine that nature measures or counts as physics "measures, counts, and relates 'quantitative' variations to one another in order to obtain laws." That is to say, so long as thought follows the windings of nature in its qualitative changes, it does not pause to measure, for nature never does that. This may be expressed otherwise, from a different point of view, by saying that quantitative considerations, and quantitative proofs of inferences or inductions which have been made, are, in a sense, imposed from without, and the quantitative law is a very inadequate and contingent expression of the nature of concrete reality. Thus positive science, fragmentary and conventional, requires to be completed by intuition, which rises above the conventional, seeks to enter into the continuity and mobility even of matter, and attempts to know reality as it is for itself, and not as it appears to a dissecting and isolating intelligence, although on account of the tendency of matter towards complete spatialization the progress of positive science, taken as a whole, means its approximation to the intuition of inert matter.[2]

Although intelligence has been "detached," "concentrated," "condensed" from a vaster reality, its separation from its fount has not been complete. "Round conceptual thought there subsists an indistinct fringe which

[1] *E.C.* p. 248 (Eng. Tr. p. 242).

[2] *Note.*—For the sake of clearness, I have kept to the main outline of the nature and creation of matter, the evolution of intelligence, and the relation of the intellectual to the intuitional interpretation of matter. As soon as one passes from such a general statement to more detailed consideration, numerous difficulties present themselves, and these will have to be considered in a succeeding chapter.

recalls its origin." We have seen that the study of the evolution of life confirms Bergson in his conception of an original *élan* of life, psychical in character, which, in its effort to graft indetermination on matter, has chosen two divergent ways, one of which led to its concentration into intelligence, the other to its realization in instinct. In the direction of intelligence this original force adopted what we have called the *mediate* method of the conquest of matter, which consisted in the construction of an organism like that of the human being, which can in time construct from inorganic nature artificial tools, implements, or machines. But there is another way in which the victory may be won, and that is by the construction of an organism perfectly self-complete, quite adequate for its activity, without the need of any artificial construction. This we might call the *immediate* method. The tools or machines which the organism requires in the interests of life form part of the organism itself. "Corresponding to this instrument there is an *instinct* which knows how to make use of it. There is no doubt that all instincts consist, from this point of view, in a natural faculty of utilizing an innate mechanism."[1] It is necessary here again to note that Bergson is dealing with instinct as it sets out from the original *élan*, and is considering it in its essential feature. It is an ideal instinct with which he is dealing, not instinct as it appears to us, mingled as it often is with intelligence. Now, an ideal instinct is the *acted* knowledge of an innate mechanism, or it is the faculty of utilizing or even of constructing an *organized* instrument. It is the continuation of the activity which raised matter to organization.

If we recur to Bergson's view of consciousness as appearing only when the action is not adequate to the

[1] *E.C.* p. 151 (Eng. Tr. p. 146).

representation, it becomes clear that instinctive action tends to be unconscious action, for "in cases where the instrument to be handled is organized by nature, the result to be obtained willed by nature, a feeble part is left to choice. The consciousness inherent in the representation will then be counter-balanced, in proportion as it tends to disengage itself, by the accomplishment of the act identical with the representation, which becomes a counterpoise to it."[1] If instinct embraces knowledge at all, it is *acted* knowledge, and tends to be unconscious. "Knowledge, if knowledge there be, is implicit only. It is externalized in precise lines of action instead of being internalized in consciousness"—*i.e.* in the awareness of its activity. Thus, in the line of evolution upon which instinct appears, consciousness does not escape. It is still imprisoned by matter.

But if this acted knowledge could become thought knowledge, what would be the nature of that knowledge? There would be no outlining of possible action; there would be the consciousness of real action, of the psychical force in its organizing activity, and of an object in its reality. "The conduct of the insects outlines the representation of determined things,[2] existing or producing themselves in precise points of space and of time, which the insect knows without having learned them." Observation of the instinctive action of insects seems to confirm the thought that they *act* a definite knowledge of determined objects. An interesting example of this is furnished by Bergson in the case of the *Sitaris*, a small beetle, which deposits its eggs at the entrance of a subterranean passage dug out by a kind of bee. The larva of the *Sitaris*, after a long

[1] *Ibid.* p. 157 (Eng. Tr. p. 152).

[2] *Note.*—By "things" Bergson evidently means individual organisms, not isolated objects.

wait, clings to the male bee on its emergence from the passage, and remains attached to it until the nuptial flight. It then seizes the opportunity of transferring itself to the female bee, and waits quietly till she lays her eggs. It then leaps on the egg, which serves to support it in the honey, and, in the course of a few days, devours it. Then, installed on the shell, it undergoes its first metamorphosis. Organized now for floating on the honey, it consumes this stock of nourishment, becomes a nymph and finally a perfect insect. It appears to act throughout as if it had a knowledge of the definite movement of definite things. If, then, this action could become conscious action, could become knowledge, it would be a knowledge of objects in their fulness. It would be knowledge of what we usually call the "matter" of knowledge. It would be "cram-full." "If the consciousness which sleeps in it were to awake; if it were internalized in knowledge instead of being externalized in action, if we were able to interrogate it and it could reply, it would deliver up to us the most profound secrets of life, for it only continues the work by which life organizes matter."[1] Instinct is sympathy. If it could become disinterested, *i.e.* if it could be freed from its practical aspect in its entanglement with physiological life; if it could become conscious of itself, *i.e.*, once more, if it could withdraw itself from externalization in action, and dive back into itself; if, finally, it could enlarge its object indefinitely, it would become intuition, and one who attained it would, in the very effort, be led to the heart of psychical movement.

Bergson combats most strenuously the view held by most biologists that instinct and intelligence have appeared along one line of evolution—that the progress

[1] *E.C.* p. 179 (Eng. Tr. p. 174).

has been *through* sensibility and instinct to intelligence; and he is no less strongly opposed to the view that instinct is a degraded intelligence. He argues vigorously that the facts of biology themselves go to confirm his theory that instinct and intelligence have appeared in their developed forms on two divergent lines of evolution; that each represents an attempted solution of one and the same problem, the conquest of mind over matter; that they are the development of two elements, which, to begin with, interpenetrated in the original generative force immanent in all life. They are thus complementary, yet opposed faculties. Intelligence is concerned with the form of matter; instinct with the activity of life. "Intelligence applies itself to all things, but it remains outside them, and it never perceives anything more of a profound cause than its diffusion into effects placed side by side."[1] The insect with its instinct "grasps what is doubtlessly only a very small part of a thing, just that which interests it; but it grasps it from within, not by a process of knowledge, but by an intuition (*lived* rather than represented) which, without any doubt, resembles what in us is called divining sympathy.

In spite of the fact that the natural tendency of human intelligence is towards a universal mathematic which manifests itself, in philosophy, in its aim at a coherent system of definite concepts, and in science, in a progress towards deduction, and in spite of the fact that its representation is increasingly symbolic as the ascent is made through the successive spheres of biology, ethics, and psychology, man is *not* compelled to admit that his knowledge of reality must remain at the symbolic level, that it is impossible for him to rise to the truly speculative point of view, that he must be

[1] *Ibid.* p. 190 (Eng. Tr. 185).

ever mocked by antinomies which he is incompetent to slay, and haunted by the ghost of an unknown and unknowable reality which yet startles his impotent mind. He is *not* pure intelligence; he is *not* "in entire forgetfulness" of the source whence he, as an intelligent being, sprang. There pulses in him, though feebly enough at times, the will which created him and which surges through innumerable worlds. Let him resist the distractions of matter, which has hypnotized his spirit; let him get back into this will, listen to it, feel it—the antinomies will disappear, and he will feel himself living the life of the world-will, for he has placed himself at the heart of the world-progress, the cosmic life, the universal will. We are, all of us, as human, artisans by nature, but we are also, as superhuman, artists, to a greater or less extent. Fugitive instincts, fleeting direct visions of reality in its inwardness, appear through the turmoil and the din of the artisan work in which contact with matter has involved spirit—let us develop these, and our vision of life becomes clear and full.

Metaphysic has, then, a definite task. The taunt of its incapacity to progress is groundless, and it may fulfil its end without losing touch, as it has so often been accused of doing, with experience. In regard to matter, it will seek to grasp the qualitative aspects of which a practical intelligence has failed to take account, and for a fragmentary representation it will seek to substitute a view of the whole. But its greatest achievements will lie in the spheres of biology, ethics, and psychology. Here it will substitute a concrete knowledge for the symbolic representations which positive science has supplied. It will, in an indefinite series of intuitions, gain a sympathetic insight into the "extra intellectual" matter of knowledge. "Coinciding with

this matter, adopting the same rhythm and the same movement, could not consciousness, by two efforts of inverse direction, by alternately exalting and humbling itself, seize from within and no longer perceive from without the forms of reality, body and mind?" It is utterly impossible, it is true, to express this intuitional knowledge in the form of subject and predicate; it must remain predicateless knowledge. Its transmission from person to person can be achieved only by suggestion, by a series of concrete images which gradually induce an attitude of such a kind on the part of the hearer that he approaches to the verge of intuition.

If, now, the attempt be made to state definitely and without metaphor the relation between intuition and a conceptual representation of the reality intuited, a difficulty arises, due partly to a want of definiteness in Bergson's statement of his thought. There are several conceivable relations. Firstly, it might be thought that immediacy is reached at the end of conceptualization; secondly, that the initial act of knowledge is an immediate grasp, out of which conceptual knowledge develops, but in which it existed in germ from the beginning, and that, therefore, the conceptual representation is in no way foreign to the immediate knowledge. In both the preceding cases immediate knowledge is an ideal limit, never reached in its purity within experience. Thirdly, it may be conceived that the intuitionally grasped reality is utterly formless, and that knowledge arises through the imposition of order by an intelligence furnished with a definite system of categories; or, finally, that the intuition of reality and the conceptual representation of it are arrived at by two processes of knowledge, each of which is the inverse of the other. The study of Bergson's work

has pointed towards the last as the alternative which he adopts. He definitely rejects the third possibility. There are passages, however, which, if taken apart, would lead one to the belief that he accepts both of the first two alternatives, which, of course, are not mutually exclusive, but each of which is certainly incompatible with the final alternative, the one which he, in consistency with the main line of his thought, ought to maintain. For example, such a passage as the following from the *Introduction à la Métaphysique* seems to indicate that the concepts which he mentions are a partial development in thought of the nature of duration, given in an immediate intuition: "If I replace myself in duration by an effort of intuition, I perceive immediately how *it is unity, multiplicity, and many other things besides.*" Again, when he argues that an intuition is achieved only when the totality of observations and experiences gathered up by positive science is surveyed, this points to the view that the intuition is the perfection of conceptual knowledge, that, at least, it is certainly not the inversion of it.

This vagueness arises partially, also, from the failure to distinguish clearly and persistently between the relation of intelligence to the intuition of *matter* and to the intuition of *life* respectively. The intuition of matter and the conceptual system which the science of matter furnishes, approximate, as we have seen, to each other, while the intuition of life and the representation of it which intelligence gives are related as the reality to its negation.

This uncertainty is not removed when the part played by dialectic in this empirical intuitional metaphysic is considered. Dialectic, it is held, is necessary in order to "put the intuition to the proof," and also in order that "the intuition may be refracted into

concepts and propagated to other men." This assertion is followed, two lines lower down on the page, by the statement that the course of dialectic and that of intuition are "in contrary directions." These two statements are difficult of reconciliation, for it is impossible to see how dialectic can put to the proof that which it, in the very process, destroys; and it is equally impossible to comprehend how a refracted intuition may be propagated through concepts to other men, if refraction into concepts means annihilation. A similar difficulty occurs when those passages in which Bergson speaks of intelligence as *implicit* in the original *élan* are set side by side with those in which it is treated as the *negation* of that *élan*.

His thought, however, in its general tendencies, demands adherence to the view already formulated—viz. that intelligence and intuition should be regarded as faculties of knowledge which are opposed, yet complementary to each other, intelligence throwing light on the structure of matter, and intuition revealing the nature of life and consciousness; the one placing us in sympathy with a movement of ascent, the other with one of descent, and the two together enabling us to ransack the universe and discover its deepest secrets. Mystery disappears; faith is swallowed up of knowledge.

This exposition may be brought to a close with an account of the evolution of life in our solar system, which appears to be the true one, if it be agreed that the physiological and mental life of man are due to a limitation of the original *élan* by the opposing movement which has been termed matter; if it be agreed that the motor power of evolution is consciousness, in the concrete signification which Bergson attaches to the central activity of the individual consciousness, and that all the external manifestations of life are the struggle of

this consciousness to overcome the opposing movement of matter. Essentially free, this motor principle seeks to annul the movement of matter towards mere repetition and necessity. In accomplishing its task, it has had to divide, and move in divergent directions, and in only one of these has it attained to the constitution of an individual capable of free action. Man alone is free, and he *is* free because of the marvellous complexity of his brain. The spiritual force has organized a sensori-motor nervous system, the progress of which consisted in a simultaneous development of automatic and of voluntary activity, *i.e.* freedom has been achieved through mechanism. "In the case of the animal, the motor mechanisms which the brain succeeds in setting up—in other words, the habits which its will contracts —have no other object and effect than to accomplish the movements outlined in those habits, stored up in those mechanisms. But in the case of man, the motor habit may have a second result, out of proportion with the first. It can hold in check other motor habits, and thereby, by conquering automatism, set consciousness free."[1] Throughout the whole struggle for freedom life has proceeded upon a definite principle. In all its stages it has been an attempt, first, to procure for itself a store of energy ; second, to dispense this store, by the interposition of the supplest possible matter, in variable and unforeseen directions, at the end of which are free actions. The plant stores up energy by separating the carbon from carbonic acid ; the animal consumes this stored-up energy, and sets it free in sudden gushes, which are automatic, or nearly so, in the lower animals, but occur when and how he will in the case of man.

In the second place, an essential characteristic of the

[1] *E.C.* p. 199 (Eng. Tr. p. 193).

evolution of life is development in the double direction of individuation and association. Life is psychical in nature, and, as such, is a confused multiplicity of interpenetrating tendencies. It is a multiple unity, or a unified multiplicity. Its contact with matter operates the separation of tendencies in a way similar to that which has already been observed in the spatialization of spirit in the interests of bodily activity. If life developed exclusively in the direction of multiplicity, that would mean its spatialization and its consequent destruction. An extreme individualism, at any stage, is not in accordance with the fundamental evolution of life; but neither is an extreme form of association, in which individualities would disappear. In the middle state, in which man and all living things exist, the balance must be struck between the two. The choice of multiplicity or unity by spirit will never be definite and determined; "it will leap from the one to the other." If it is divided amongst a number of individuals, it is still the one *élan*, the one consciousness, which courses through all these individuals, and it overcomes matter only by perfecting a multiplicity of individual organisms. "Everywhere the tendency to become individual is combated, and at the same time completed by an antagonistic and complementary tendency to associate, as if the multiple unity of life, drawn in the direction of multiplicity, made as great an effort as possible to bend back upon itself. A part is no sooner detached than it tends to become reunited, if not to all the rest, to that at least which is nearest to it. Therefore in the whole domain of life there is a balance between individuation and association. Individuals are juxtaposed in a society, but the society, formed with difficulty, would fain dissolve the juxtaposed individuals in a new organism, and become itself an individual which can,

in its turn, form an integral part of a new association."[1] This is an interesting metaphysical explanation of the alternations which history presents between a swing towards communism and one towards individualism.

In the third place, the evolution of life towards reflective intelligence is essential. In man, and in man alone, consciousness is free. We may say, then, that man is the end of evolution. This must not be taken to imply that a definite programme has been followed, but that in man the freedom which consciousness had lost by its contact with matter has been most completely regained. In the course of this evolution consciousness has been compelled to abandon part of itself. It has conserved intelligence, primarily. Man is essentially intelligence: it was necessary that he should be so if he were to gain the conquest over matter. A complete and perfect humanity would be one in which intelligence was supplemented by intuition, in which these two forces found full development, and according to Bergson's conception the philosopher will be the nearest approach to the perfect man. He conquers matter, not by ignoring it, but by patiently deciphering its meaning, and as the order in matter is intelligence, it was necessary that the psychical force should develop into intelligence if through knowledge of matter it was to overcome it.

Finally, the contingent elements in the evolution of life are apparent. In the first place, the forms of life adopted or rather created are contingent. There was no necessity that consciousness should choose the carbon of the carbonic acid as the form of energy which it should store up in the organized plant. "What was essential was that it should store up *some* solar energy. But instead of demanding that the sun

[1] *E. C.* p. 281 (Eng. Tr. p. 273).

should separate from one another, for example, atoms of oxygen and carbon, it could have selected other chemical elements, which would then have had to be associated or dissociated by quite different physical means."[1] In that case, the chemistry of organized bodies would have been radically different from what it actually is. It is quite likely that "life manifests itself in other planets, in other solar systems also, in forms of which we have not any idea, under physical conditions which appear, from the point of view of our physiology, to be utterly repugnant to life."[2] Indeed, Bergson goes so far as to say that it is not necessary that life should be concentrated and made precise in properly determined organs at all. "It is conceivable that energy may be placed in reserve, and then dispensed on variable lines coursing through a matter which is not yet solidified."

In the second place, the proportion of intuition to intelligence in the mental structure of the human species is contingent. "Between the perfect humanity and ours one may conceive many possible intermediaries, corresponding to all the degrees imaginable of the intelligence and the intuition. That is the part of contingence in the mental structure of our species. Another solution might have issued in a humanity which was either more intelligent still, or more intuitive."[3]

In the third place, the physique and the morality of man are contingent. "Man has warred like the other species; he has warred against the other species. If the evolution of life had been opposed by different accidents *en route*, if, then, the current of life had been divided otherwise, we should have been, in

[1] *E.C.* p. 277 (Eng. Tr. p. 269). [2] *Ibid.* p. 278 (Eng. Tr. p. 271).
[3] *Ibid.* p. 290 (Eng. Tr. p. 282).

physique and in morality, very different from what we are."[1]

The great fact to be strongly emphasized is that the consciousness, a split-off part of which energizes at the heart of all life in our solar system, is essentially free. If you call it God, then God is perfect freedom, incessant creation, and in so far as we are free we are divine. We may be aware of this free activity, first, in ourselves, and second, by an act of sympathetic insight, in all life about us. Then "we no longer feel ourselves isolated in humanity; humanity no longer seems to us isolated in nature which it dominates. As the smallest grain of dust is interconnected with our entire solar system, carried with it in this undivided movement of descent which is materiality itself, so all organized beings, from the first beginnings of life to the time in which we live, and in all places as in all times, do but render visible to the eye a single impulsion, the inverse of the movement of matter, and, in itself, indivisible. All living beings hold together, and all yield to the same formidable impetus. The animal finds its point of support in the plant, man bestrides animality, and humanity in its entirety, in space and in time, is one immense army which gallops on every side of us, before and behind us, in a sweeping charge capable of overcoming all resistance, and of clearing many obstacles, perhaps even death itself."[2]

[1] *E.C.* p. 288 (Eng. Tr. p. 280).

[2] *Ibid.* pp. 293 and 294 (Eng. Tr. pp. 285 and 286).

PART II

CRITICISM

CHAPTER III

THE NATURE, FUNCTION, AND GENESIS OF INTELLIGENCE

We have Bergson's thought now before us in some detail. The task remains of estimating its value, and of offering a criticism of its results. But before proceeding to undertake that one may notice the remarkable diversity of judgments which have been passed upon the thought of this most interesting philosopher. To take just a few instances: Hermann, Graf Keyserling, in Germany, considers that Bergson's philosophy "is perhaps the most original production since the days of Immanuel Kant," and that it belongs to that small part of the work of our epoch which will survive. Lord Haldane states that what is essential in his thought may be found in the first volume of Schopenhauer's *Die Welt als Will und Vorstellung*. Professor Bosanquet, speaking of Bergson's first book, *Les Données Immédiates de la Conscience*, holds that "we are watching the rise of a new agnosticism." The delight with which James, who had hitherto found no rest for the sole of his foot, embraced Bergson's method, and avowed himself an ardent disciple, is an interesting piece of romance in the too unromantic history of modern philosophy. In his own country Bergson has much honour in certain quarters, but is cautiously

watched and openly opposed in others. The older idealists, as, for example, Fouillée, adopt a decidedly critical attitude towards him, Fouillée holding that his philosophy must, by a natural development, issue in scepticism and nihilism. Many, however, of the younger generation, notably Le Roy and Wilbois, follow him with all the enthusiasm of disciples. Concerning his influence on the younger generation in France who have come under his sway, one professor says: "A certain number of young men yield to the charm of the style and the ingenuity of the thought, and become devoted followers. They generally have a certain disdain for positive science. For them, as for their master, philosophy commences where science leaves off. Science has a very limited domain. It is confined to disengaging from the given that which is geometrically and mechanically representable. It substitutes for the real an abstract and fictitious construction which has a great practical interest, but which is scarcely entitled to be called knowledge of the real. They are indifferent to it. It is good for manufacturers, doctors, and engineers, but it is altogether uninteresting to philosophers. The world of consciousness escapes science entirely. Psychological facts may be lived, but cannot be scientifically known." It is interesting to note this, for it is entirely opposed to the spirit, and remote from the intention of Bergson's own thought. One of his chief aims is to establish science and metaphysic on stable, though independent bases. The variety of opinion concerning this new philosophy indicates one thing at least—that it is important enough to arouse great interest in diverse quarters, and that it will have to be reckoned with in all attempts at philosophical construction in, at least, the immediate future.

In its historical relations, Bergson's thought is most closely connected with the romantic development in Germany in the nineteenth century, and more particularly with the thought of Schelling, who, it will be remembered, attempted to grasp, by an *intuition* which transcended intelligence, the inner nature of Being and the progressive outgoings from it of subordinate qualitative forms of reality. The influence of this school seems to have reached him through M. Felix Ravaisson-Molliern, who came into contact with Schelling in Munich. The leading ideas in Bergson's thought are foreshadowed in the work of Ravaisson, and Bergson writes of him with the admiration and enthusiasm of a disciple. But Bergson is no "mere trader on other men's premisses." His method is largely his own, and we may treat his philosophy as the product of an independent thinker. He develops his central thesis with a freshness and vigour of thought and a facility of expression which force upon us the conviction that we are in the presence of an original, keenly analytic, speculative mind, as well as a brilliant *littérateur*.

At the same time, Bergson's thought may be regarded as the expression of a movement which is making itself felt throughout Continental and British philosophy. The prevalence of the tendency to set definite limits to the range of conceptual knowledge, if not to disparage the intelligence altogether as a faculty capable of achieving metaphysical knowledge of reality, cannot be denied. If one takes such names as those of Nietzsche, Paulsen, Eucken, Windelband, Poincaré, Boutroux, James, Bradley, Pringle-Pattison and Bergson, and if one realizes that, though they represent very varying systems of thought, yet they all manifest this tendency in a more or less pronounced degree, one will recognize the far-reaching character of the movement. Within

the sphere of philosophy itself it may be traced partly, at any rate, to a revolt against the view that the nature of being may be exhausted in the knowledge of it which the human mind can gain ; partly to the failure of naturalism in its attempt to explain all experience on one level, so to speak, and that the mechanical ; partly also to the influence of the development of the science of psychology, by means of which the concreteness and activity of the mind have been brought into prominence. The growth of the science of biology, dominated by the principle of evolution, has emphasized a tendency in a similar direction. But it may also be regarded as the reflection in philosophy of a more general phenomenon. The present age is characterized by a wonderful expansion of life in all directions—in commerce, in invention, in the more general realization and the development of the social organism. In short, we are witnessing a remarkable growth of the consciousness of the activity of life in its individual and collective form. Emphasis has shifted from knowing and being to doing. It is not strange that we should find this spirit reflected in philosophy, since " every philosophy is a reflection of the spirit of its time," and that the ultimate meaning of the universe should be sought in terms of life, activity, will, while the intellect should come to be regarded as the pilot which guides life to its final end and purpose, and as capable of attaining to a knowledge of reality only in so far as the practical activity of our " middle " state requires it, or of furnishing us with such a diagrammatic representation of the universe in which we live and move and have our being as will enable us to live more fully, to move effectively, and to realize the essence of our being, which is free activity.

But philosophy must always be concerned with the *knowledge* of life—above all, of human life—its origin,

its nature, and its destiny. It needs no philosophy to prove the fact either of knowledge or of life. The question which faces the speculative thinker in an age such as the present is this: May philosophers lay claim to any special kind of insight into the nature of the fact of life, or must they yield to the claims made by those dominated most powerfully by the practical spirit of the age, and recognize that the philosopher is a by-product, of little or no account in determining the final issue of things; that, living apart from the main stream of being, he luxuriates in utilizing for speculative purposes the faculty with which he is endowed so that he may secure the most perfect adaptation of his body to his material environment? These alternatives seem to have presented themselves to Bergson's mind, and he unhesitatingly identifies himself with the first. He surrenders reason to the exclusive use of practical man, but he boldly asserts the possibility of developing a hitherto almost latent faculty, by means of which the metaphysician, untrammelled by pragmatic ends, may gain a purely disinterested knowledge of reality. A third alternative, however, suggests itself, which it is well, in a critical analysis of Bergson's thought, to bear in mind. Without admitting the extreme limitations which a thorough-going pragmatic view of reason imposes upon it, the philosopher may cheerfully accept the obvious incompleteness of our finite, still developing, human state; patiently wait upon his evolving experience; critically elucidate, by careful reflection, the fundamental elements in that experience; note the possible expansion to which experience points; and, with his feet upon a firm basis of tried and proved knowledge, boldly venture into the future with the courage and hopefulness of a rationally grounded faith.

If it be needful to grant the limitations of our know-

ledge, to admit that the most perfect system of human thought, when it is fairly regarded, is seen to afford only a diagrammatic representation of the universe, and that no other representation is possible, the question still remains: What is the relation of this diagrammatic representation to that immediate experience which is with the pragmatists a flux of sensation, and with Bergson a direct intuition, an experience of which it is the conceptual interpretation? Is it a true development in knowledge of what is immediately experienced? Is it a fully-articulated system of coherent judgments, due to the combined processes of differentiation and integration, which constitutes for us actual knowledge of an actually articulated system immediately, though confusedly, apprehended in inner and outer perception? Or is it simply a conceptual scaffolding, or a mere set of ideal instruments which enable us to make our way about in the reality in which we are immersed, but which cannot be said to express the nature of that reality?

Bergson, in one movement of his thought, identifies himself with the pragmatists to this extent that he regards all *conceptual* representations as contingent to our human state, and not as expressing the nature of reality. He appears to make an exception in the case of mathematical laws. The existence, the reality, of these conceptual constructions is undoubted; that they are man-made, peculiar to the human state, does not tell us anything, one way or the other, as to their *objective* validity or reality. All knowledge which is achieved by men must be, in a sense, man-made. Further, the system of knowledge which they constitute is a system of *human* knowledge, knowledge *for us*, but it is incompetent for any one to assert, on that account, that it is symbolic or inadequate, unless it is possible for

him to gain, *in knowledge*, a higher point of view than that of the human. Only *if* this be possible can a vantage ground be secured from which the inherent limitations of the conceptual structure may, with any meaning, be asserted. From this higher standpoint the achievements of science may possibly be judged symbolic, knowledge of surfaces, merely man-made. But the conditions must be fulfilled, the higher point of view must be actually attainable, before one can be entitled to condemn the knowledge which we have. It is fatuous for those who, like Bradley, hold a theory of the Absolute, to reject the conceptual knowledge which we have of reality, part at least of which is gathered up in our systems of scientific knowledge, because it is not knowledge from the point of view of the Absolute. These thinkers have not shown that we can assume such a point of view, that we can stand off from our own capacity of knowing, and pass judgment on its validity. James seems to have fallen into the same error in his persistent condemnation of conceptual knowledge, because it does not tell us what makes reality go. He is guilty of the error of those whom he is much concerned to refute. He brands as incompetent the knowledge which we have, because it is not some other kind of knowledge which, in the nature of things, it would seem we cannot have ; he forswears intellectual knowledge because it does not tell us how that which we know, our faculty of knowledge included, came to get made. Bradley and James, curiously enough, are found ultimately to be faced by the same difficulty. Neither of them has been able to transcend the point of view of the knowledge which they yet decry, with many defamatory epithets, as giving us mere appearance or as negating the inner nature of reality.

Bergson, however, seeks to avoid this error—with

what amount of success it remains to be seen. He holds that knowledge by means of concepts is inadequate, but he maintains that it is possible to transcend the human point of view. "In the living mobility of things the understanding applies itself to marking out real or virtual stations; it notes departures and arrivals —that is all that matters to the thought of man in so far as it is simply human. It is *more than human* to grasp what happens in the interval. *But philosophy must be an effort to transcend the human condition.*" This assertion of the possibility of transcending what is usually regarded as the human point of view is the main distinguishing feature of Bergson's philosophy. If his contention be true, if an intuitive grasp of reality be possible, then the above criticism levelled at James and the holders of the theory of the Absolute is entirely beside the mark if directed towards Bergson. The ultimate points to be decided are:

(1) Has Bergson justified the limitation of strictly human knowledge to the sphere of the mechanical?

(2) Has he made out a case for the possibility of intuition?

(3) Have the applications which he has attempted to make given us a knowledge of any reality which falls entirely outside the limits of the grasp of intellectual knowledge?

The criticism which follows will move round these three questions, since they bear on the essential points towards which Bergson's thought is directed. In the present chapter, the assumption that what is usually called the faculty of human knowledge is in reality a faculty the end of which is not knowledge, but action, will be examined. The consequent contraction of the limits within which intelligence must confine itself, and

Bergson's attempt to show how intelligence has been condensed from a vaster reality—first, in the development of the race, second, in the life of the individual, will be considered. In a succeeding chapter, the positive part of Bergson's philosophy—the intuition as a faculty of knowledge, and its relation to intelligence —will demand attention.

Apart altogether from the possibility of an intuition, the need of it will become apparent only if the limitations of intellectual knowledge are admitted, and a great part of Bergson's work is directed to showing not only that such limitations *must* be admitted, but also how they have been brought about. It is necessary then, first of all, to be clear as to the positive worth which Bergson attaches to intellectual knowledge. We shall then be the better able to understand its limitations. He draws a unique distinction between "concepts" and "mathematical relations." The difference is not one of degree; the "mathematical relation" or "law" is not a refinement of the remaining "concepts"; it differs from them in kind. "Concepts aid science, but they are, for it, only provisional diagrammatic representations." The ultimate aim of science is to attain to the statement of mathematical relations, constant relations between varying magnitudes, and such laws, though utterly foreign to the nature of life and consciousness, are neither provisional nor symbolic in the sphere of matter, for geometry is immanent in matter. Bergson puts his *imprimatur* upon the exposition of his theory of the concept given by James in *A Pluralistic Universe*, and so it may be permissible to quote from that work. "We need a stable scheme of concepts, stably related with one another, to lay hold of our experiences and to co-ordinate them withal.... But all these abstract concepts are as flowers gathered,

they are only moments dipped out from the stream of time, snapshots taken, as by a kinetoscopic camera, at a life that in its original becoming is continuous. Useful as they are as samples of the garden, or to re-enter the stream with, or to insert in our revolving lantern, they have no value but these practical values." "The conceptual method is a transformation which the flux of life undergoes at our hands in the interests of practice essentially, and only subordinately in the interests of theory." "Instead of being interpreters of reality, concepts negate the inwardness of reality altogether." "What we do, in fact, is to *harness up* reality in our conceptual systems in order to drive it better." "The original and still surviving function of our intellectual life is to guide us to the practical adaptation of our expectancies and activities." Further quotations are unnecessary to indicate that for Bergson, as for James, concepts, as distinguished from mathematical laws, are all provisional, diagrammatic, symbolic. They negate the nature of reality, in whatever sphere they may be applied. Ostensibly interpreters of life, they are really forms applied *ab extra* to something which is quite foreign to them ; they may express the nature of matter in so far as it interests the needs of the body, but that expression is always fragmentary, provisional, contingent ; what we know of matter in our conceptual representation of it is matter as it is *for us*, and not matter as it is *for itself*. Concepts are, at the best, mere footholds to enable us to pass to the higher point of view, that of intuitive knowledge of matter, or as Bergson (paradoxically enough !) holds, of life.

Mathematical laws, on the other hand, are immanent in matter, and intelligence, "which tends naturally to geometry," is perfectly at its ease in the domain of inert matter. This is what Bergson must have in mind in

all those passages in which he speaks of the success of physical science. "We construct a science sufficiently representative of reality," for matter "*is extended* in space"; even though "it is not absolutely extended." Although concepts such as mass, energy, ether, atoms, "negate," in James' phrase, "the inwardness of reality," mathematical relations express the absolute nature of matter. "The space of our geometry and the spatiality of things are mutually engendered by the reciprocal action and reaction of two terms which are the same in essence, but which proceed in inverse directions." Again, when Bergson says that "physics, in its general form, touches the Absolute," it is not quite clear whether he has in mind the concrete representation of a more and more articulated world which physical science has achieved and is gradually perfecting, or the system of mathematical relations in which the laws of this system are ideally expressed. But if the consistency of his thought is to be preserved, he must have in view physics as it expresses its results in mathematical laws, and not the concepts of physics, while by the Absolute he must mean an ideal matter which has freed itself from duration. The foundation of this view with regard to the reality of mathematical laws lies in the view indicated above—the view that "progressively, intelligence and matter are adapted to one another so as to be arrested finally in a common form."

The sphere of intellect is thus marked out. It speaks the truth when it expresses the nature of perceived matter in mathematical laws, *and only then.* It speaks in mere symbols whenever it predicates in conceptual terms. It cannot say anything whatsoever about change—physical, physiological, or psychical. If it does attempt to express the nature of these, it speaks in symbols. Not only that. The intrusion of the

practical intellect into the sphere of speculation is responsible for many of the "difficulties hitherto inherent in all metaphysic, the antinomies which it raises, the contradictions into which it falls, the division into antagonistic schools, and the irreducible oppositions between systems."

Bergson's argument in support of the view of the limited sphere of valid application of the intelligence may be considered in its various stages of development. Intelligence is the faculty of action, and not of disinterested knowledge, and its function is to secure "the perfect insertion of our body into its environment, to represent the relations between external things—in short, to think matter." Again—"The essential function of intelligence is to prepare our action on things, to foresee the favourable or unfavourable events which might follow on a given situation. It isolates, then, instinctively, in a given situation, that which resembles the already known; it seeks the same in order to be able to apply its principle that the same produces the same. The irreducible and irreversible elements in the successive moments of a history will escape it." In Bergson's hands the form of intelligence turns out to be space, and all its concepts are fundamentally spatial. By its means mathematical relations are apprehended, and these are constitutive elements of *matter*. In his earliest published works Bergson does not bring this argument into prominence. In the *Essai*, for example, intelligence is rather *assumed* to be limited to spatial representations. Consideration of the argument concerning time is sufficient to confirm this. The conceptions of space and time are, he argues, fundamentally identical; as *pure* concepts they are not to be differentiated. The *assumption* is that, because the scientific intelligence has, in its attempts to measure time, been compelled

to treat it as not different from space, therefore the human intelligence is incapable of conceiving it as different from space, *i.e.* the human intelligence is identical with the intelligence of the mathematico-physicist. This is a pure assumption, which will have to reckon with the undoubted fact that human reason is capable, without transcending its limitations, of judging that the scope of the scientific intelligence is limited to the mechanical and quantitative, and that it does not embrace the whole of reality within its explanations. This objection need not be pressed at the present stage. But it must be noted that to expose the fact that the scientific intelligence does not deal with time without spatializing it is not to prove that the human intelligence is incapable of conceiving time, but simply to indicate that reality or experience cannot be forced without remainder into the concepts which the scientist, so long as he confines himself to mathematics and pure physics, finds it necessary to utilize. A further step on Bergson's part is inevitable. He must give some ground for the assumption which he has made, and, following up the suggestion that the spatialization of spirit takes place in the interests of social and biological utility, he puts forward the argument with which we are now concerned, viz. that this form of the intelligence, this narrow view of the reach of intellectual concepts, is not arbitrarily assumed. The nature of intelligence, as such, follows from its function, which is to know matter practically. Its form may be deduced from its function.

The cogency of this argument depends upon the assumption that the function may be determined apart from a knowledge of the form. Or, to put the same truth in a less general way, the argument depends upon the assumption that the action of human beings demands only a mechanical or superficial view of the

universe, that the needs of man, which the intelligence has evolved to satisfy, are to be met by a knowledge of matter. Now, this assumption, both in its general and in its more particular form, is utterly unwarranted. In the first place, far from it being true that the form of intelligence may be deduced from its function, the function of intelligence reveals itself in its form. The inherent nature of intelligence comes to light as it grows, as it extends its sphere of work, and in that very extension manifests its hitherto hidden possibilities. It is not within the sphere of physical science alone that intelligence has achieved its triumphs. It has, under the guidance of the concepts of purpose, of good, and of beauty, the meaning of which is as clear to it as the concepts of space and of quantity, constructed systems of ethics and art and religion. These, the most highly treasured possessions of the human mind, belong to man in his present limited middle state; they have appeared only with the dawn of a truly rational experience, and the development of the rational faculties has not excluded them from experience, but purified and exalted them. The true function of reason is discernible only when human experience in its entirety—not merely the experience of the positive scientist—is critically examined, and the form is elucidated. Bergson himself, in his criticism of Kant, incidentally refutes the argument which supports his own position here. One of the fundamental initial mistakes made by Kant in his dissection of the human understanding was that he put the problem in such a way that the solution was prejudiced from the very beginning. Now, the essential part of this criticism may be directed against Bergson himself. Kant assumed a certain function of mind—the mathematico-physical function. He assumed, that is to say, the possibility of mathematics and pure

physics, and as a result of this assumption the "form" of the mind was determined, and the sphere of knowledge delimited from that of faith. Bergson explicitly says that the form of the mind may be deduced from its function, and limits that function to the knowledge of matter. Both are equally wrong. It must be frankly admitted that Bergson seeks to show that the form of intelligence may be established by actually watching its genesis, and that argument will occupy us later on. What I am concerned to refute at present is the argument that the legitimate operations of intelligence are to be pre-determined by the assumption that it has a definite function. The form of intelligence, as well as its function, can be determined only by a critical examination of experience in the individual and in the accumulated mass of the experience of the race as it exists in our systems of thought, our moral codes, and our traditions, that is to say, by reflection upon its functioning.

But in the second place, one could believe that intelligence is an instrument of human life, and yet feel bound to dispute the argument, based on this admission, that its function is limited to knowing matter, for that argument rests upon another assumption, viz. that the needs of man demand for their most perfect satisfaction only a knowledge of matter—and that assumption cannot for one moment be allowed. If we regard man as merely a body, and thought as directed solely, or even primarily, towards the continuance of this body in existence as a centre of indetermination, towards the prevention of its destruction by external forces working for dissolution and decay, then the assumption that thought will know only matter has some plausibility. But this is to degrade man to the level of the brute. Indeed, it might quite well be

argued that the activities, the interests, the needs of man, *as* man, require for their satisfaction something more than a knowledge of matter, and that the instrument of thought which is to be an adequate one for such a being must rise above the mechanical level. What constitutes him man in distinction from the lower creation is indicated in his rational nature, with the appearance of which moral, aesthetic, and religious needs are contemporaneous. These are his *supreme* needs.

> "What is he but a brute, whose flesh has soul to suit,
> Whose spirit works lest arms and legs want play?"

Man, as man, experiences the stress of demands more urgent than those of his body. Without of necessity despising his body, he has frequently felt that it was a clog, a "muddy vesture" grossly closing in his spirit, and at times standing between him and the satisfaction of his highest needs, needs which he clearly conceives. He is often willing to sacrifice his body in his enthusiasm for the achievement of ends which his reason prescribes to him as worthy of all his efforts. Most perfect insertion of his body into its environment is a need, but a very subsidiary one for man at his best. It is the "chief end" of the animal. Bergson would say that these higher needs are met by the insight given by the faculty of intuition, which throws "a flickering and feeble light" on our inner nature, on our place in the world, on God, and on our eternal destiny. But the question is just to know if reason itself is not adequate to our guidance as men, and my contention at this point is that its inadequacy can be demonstrated only by an examination of its capacities as they are manifested in a truly human experience, and that if we are going to attempt to deduce the form of human reason from

its function, then we have no right arbitrarily to limit that function. We are in duty bound, when seeking the function of the *human* reason, to treat man as human, and not merely as a bodily organism with a guiding mind attached to it, whose sole, or even whose primary function is to secure its most perfect adaptation to its material environment. That contention remains unaffected by any appeal to the intuition—in fact, it does not require such an appeal.

But even if we regard man on the lower level, it does not follow that there is any *a priori* presumption in favour of the view that the intelligence which guides the body's activity must assume the form which Bergson attributes to the human intelligence. The biological and economic welfare of man surely demands for its achievement as accurate knowledge of time or duration as of space. The world in which the organism has to pursue its life is, on Bergson's own showing, an "enduring" universe. Even matter, though it is extended, is not wholly extended; though it is moving towards space, is not quite spatialized; though it is tending to be entirely quantitative, still retains some of its quality. It is surely essential to the continuance and well-being of the organism that its guiding spirit should know the material world as it is, and not conceive it as an ideal homogeneous *plenum* in which only an intelligence whose form was space could move with certain step. From Bergson's own point of view, it would seem that consideration of the function of intelligence, even if it affords any *a priori* clue to the nature of its form, goes to support the presumption that human reason will achieve conceptions other than those of space or quantity. It is surely not by presenting a distorted view of matter that the mind will best secure the most perfect adaptation of the body to its

environment. Yet in the first chapter of *Matière et Mémoire* it is argued that in perceiving matter we do distort it. We isolate in thought bodies which are not really isolated, and so carve out a reality which consists in a whole of interacting parts. That, which on any theory of perception may have to be admitted, since all attention is selective and all perception partial, is not all, for though our perception of the sensible qualities is more nearly true, it is not quite true. Our memory condenses in thought that which is infinitely diluted in matter. In developed perception the contributions of memory are substituted for the immediate or "pure" perception. In representing movement intelligence immobilizes it, and gives us a series of dots, of stopping-places. "Whether it is a question of qualitative movement or of evolutive movement or of extensive movement, the mind is so constructed as to take stable views of instability." In fact, "whether it is a question of thinking, becoming, or of expressing it, or even of perceiving it, we scarcely do more than set in motion a kind of internal cinematograph." Now, Bergson's statement regarding the connection between this form of the intelligence and its function seems impossible of acceptance. It surely cannot be urged with any show of reason that a mind-constructed representation of the world which differs from the world as it is will serve the interests of the body better than an immediate and accurate, as far as it goes, or, to use Bergson's word, an "intuitive" knowledge of the material world. The body has not to insert itself into the universe which the intelligence constructs, but into the universe as it is, so that we seem to be led to the paradoxical conclusion that the intuitive grasp of matter is, *a priori*, to be preferred to the intellectual view of it *because the former is more useful*, although

the latter has been evolved the better to secure the insertion of the body into its environment. "Fluid concepts" which follow reality in all its windings would be much more useful for the guidance of a body plunged in that reality than concepts which to some extent misrepresent reality. Has the *élan* of life made a mistake in degrading itself into this intelligence which misrepresents the actual material universe in which we are called upon to live?

But further, since an individual is, as a mere individual (*i.e.* apart from the social organism of which he forms a member) an abstraction, since his biological activity is conditioned by the life and character of the other members of society, it seems *a priori* likely that the faculty of knowledge which will secure his most perfect activity in his concrete surroundings is one which will give him an insight into the life and activity of other individuals. Here, again, then, we are led to the same disconcerting conclusion as before. Intuition is more useful than intelligence as Bergson conceives it.

It will be agreed, I think, that when Bergson proposes to deduce the form of intelligence from its function, he has set out from a too limited view of that function. No one will dispute the fact that one very important part of the work of intelligence is to know matter, and that in order to know it, to be capable of interrogating it, we must bring to our investigation certain conceptions or categories. But that must not arbitrarily be assumed to be the sole function of the rational mind. That function in its growing completeness is seen only in what it actually does, in its most perfect work. We cannot say beforehand what its function or its form will be. We possess the power of reflection, and in the exercise of that power we can critically examine our experience, being very careful

to omit no factor, and on the completion of our examination or criticism the true function of intelligence is clear.

Kant was right when he insisted on this critical method and sought, in the *Critique of Pure Reason*, to lay bare the framework, so to speak, of the faculty of knowledge. His fatal error lay in *a priori* restricting the limits of knowledge. From the very beginning he was confined to the revelation of mechanical categories, for he had omitted from experience the patent facts of morality and purpose, and thus condemned experience to remain always on the same level as that of physics and mathematics. His magnificent attempt to reinstate the elements which he had omitted led him to violate the critical method which he had himself established, and issued in the fatal irreducible division between the pure and the practical reason. Now, there is a similar line of procedure in one movement of Bergson's thought. He seems to accept Kant's restriction of the limits of possible rational experience, for although he does not accept his view of a raw material given without form to sense, but rather regards the spatial order as, in a manner, immanent in the perception, he limits the function of thought to the purely mechanical sphere. But is it not clear that by initially limiting the function of thought Bergson is pre-determining its "form"? The apparent advance on Kant here is that Bergson seeks to connect the form of intelligence with its function as an instrument of life. Kant had also, *indirectly*, connected the form of intelligence with its function. When he was in search of an idea by which the system of categories might be determined and under which it might be comprised, he saw that understanding is the faculty of judgment, that judgment is the function of the understanding—*i.e.* the different kinds of judgments

express the different ways in which the understanding acts. If a complete classification of judgments can be found, then the different modes of unifying experience are revealed in it, and a complete system of categories may be formulated. The next step in Kant's procedure involves his artificial limitation of the functions of the understanding. Since he ascribed absolute certitude and perfection to the system of judgments which the formal logic of his time supplied, he adopted this classification as furnishing a clue to the system of categories, instead of setting out from the functioning unity and showing how all the unifying conceptions spring out of this unity. An exhaustive classification of functions of unity is attainable, not by an appeal to any particular science, such as logic or mathematics, or physics, but by the reflective analysis of the functioning unity itself. Bergson, in the belief that the function of intelligence is not judgment but action, seeks, as we have seen, to show that its form will be adapted to that of matter, upon which it has to act. But this is an arbitrary limitation. In seeking to arrive at a complete knowledge of the nature of intelligence, we make a false step when we set out from presuppositions of any kind which will, *ab initio*, restrict its activity or its nature. Experience, or better, the experiencing consciousness, can be our only guide here. Strictly speaking, you cannot separate form and function. The one cannot be *deduced* from the other; each is, in a certain sense, the other, for the form is revealed in the progressively perfect functioning, and the function is clearly understood only when the form is displayed to the inner vision of reflective thought.

But Bergson will deny that the narrow view of the function of the intelligence is arbitrarily assumed. He will, in the first place, justify it by pointing to the

results of his hypothesis; he will point to the antinomies which are laid by following out the restrictions which would limit the function of intelligence to action primarily rather than to thought. The presupposition that perception has a practical and not a speculative interest leads to the settlement of the differences between realism and idealism; the presupposition that intelligence is limited to mechanical categories leads to the solution of the antinomy which the assertion of human freedom raises, and so on. But this appeal will have weight only with those who are discontented at the appearance of these antinomies within experience. It will count for little with others who, convinced of the necessary limitations which our finite humanity imposes upon our thought, see in these antinomies, not the indication of a radical defect in thought as thought, nor of a misuse of thought, but a necessary feature of man's incomplete knowledge. For such thinkers the antinomies are not inexplicable; indeed their explanation is found, not by transcending human experience, but by setting out from its limitations as an indubitable datum.

In the next place, Bergson attempts to justify his view of the function of intelligence by an appeal to the results of a critical study of the process of evolution which he has made in *L'Evolution Créatrice*, and he claims to have shown that intelligence has emerged as a faculty of action, and how it has done so. Its function is, therefore, explained and proved, no longer assumed. Further, he will say, intelligence has achieved its greatest work, found itself most perfectly at home, in physical science, and an analysis of the results of scientific investigation in their utmost refinement reveals only mechanical categories—space and mechanical causation. From "the point of view of commonsense" the "portion of the material world to which

our intelligence is specially adapted" is quite clear. The "unorganized solid," the "discontinuous," the "immobile," spatialized matter—these are the realities with which it feels itself most at home. "There is one point on which everybody agrees, that is, that intelligence feels itself most at its ease in the presence of unorganized matter." Finally, Bergson will reply, we may actually, from the higher point of view of intuition, place ourselves in a "consciousness" which "transcends" intelligence, and may see how the intelligence which guides our being is formed by "a kind of local solidification" of a "fluid" reality. "The intelligence, reabsorbed in its principle, will live *à rebours* its own genesis," and the form in intelligence and the order in matter will be seen to be the same. This is the crux of Bergson's whole position, and will later on demand our careful attention.

The second of these arguments may be at once set aside, for it does not justify any wider conclusion than that the most exact, stable, and coherent system of knowledge is that which has been reared upon the mechanical categories which positive science has brought into requisition. The success of intelligence in one department of experience, however, must not be used to prove its utter incapacity in any other sphere.

The first and third arguments are of supreme importance, and attention must now be directed to the first. Let us admit the value of Bergson's patient and brilliant study of the process of evolution in the first two chapters of *L'Evolution Créatrice*; let us admit that he has established the position that the facts of evolution demand for their adequate explanation the admission of factors other than mechanical, that, when we have pushed our scrutiny of the mechanism of life to its utmost limits, we are very far indeed from com-

plete satisfaction of the mental demands for a full understanding of living processes. Let us admit to the full the utter insufficiency of mechanical principles for the comprehensive exposition of biological facts, and the patent bareness of attempted mechanical explanations of the manifestations of conscious activity. Let us admit, in order to meet Bergson here, that his study of the evolutive process has indicated the necessity of postulating a psychical force which provides, or is itself, the dynamic of the progress from lower to higher forms of organic life. In the face of all these admissions, it still seems to me that it is to the critical study of our own experience in all its degrees or in all its directions that we are to look for the inner structure of that psychical force. Its nature cannot be determined by an empirical study of the process of evolution. At the most, all that such a study can do is to explain existing facts, and if a thorough-going analysis of our experience, an experience which includes a knowledge of the process of evolution, issues in a certain view of the nature and function of intelligence a philosophy based on a study of the development of life in the evolutive process must explain, if possible, the growth of such an intelligence: it must not, under any conditions, be allowed to explain it away.

Bergson's examination of the evolutive process does nothing more than lead to the hypothesis of a psychical force at the basis of development. He has done much to show that life is, to use Huxley's phrase, the cause of organization and not its product; he has emphasized the need of postulating something more for the understanding of life than the play of merely mechanical factors, and has given a weighty form to the argument that the knowledge of the interplay of particles of matter, however minutely analysed, does not exhaust

the nature of the organic world as it presents itself to us in the course of experience. Such a knowledge does not of itself give us any idea, for example, of adaptation or purpose. But at the end of Bergson's examination of the evolutive process he is left with an hypothesis of a "psychical" force. And this hypothesis must remain that of "a something, I know not what," until it is interpreted in terms of its highest expression, *i.e.* the conscious reflective activity of human beings, who, as self-conscious, are the highest type that we know of individuals. It is here that the clue to the meaning of evolution is to be discovered, and here alone. It must be admitted that life is wider than intelligence, but, when it is a *knowledge* of life that is in question, it is surely the case that the two terms known life and rationally known life denote an entirely identical reality. The word "rational" is here used in its widest meaning. By "rational" knowledge we may understand that which is constituted by all the concepts which intelligence is capable of formulating. It is just this, of course, which Bergson denies. For him, rationally known life is an expression which cannot be allowed. Rationally known life equals zero. The only knowledge of life which we possess is "intuitive," "divined."

The ultimate source of our knowledge of life is, however, for Bergson, too, the nature of the self. The inner nature of the self is felt in a free act, when "we contract all our being in order to hurl it forward." We then have the consciousness of "the becoming" by which the "motives and movements" are "organized into an act." But we can obtain a glimpse of pure will, which is the principle of all life, as also of all materiality, only by profound study of philosophy. It appears, then, that it is to the history of thought rather

than to the process of organic evolution that we must, in the last resort, turn, if we are to gain intuitive knowledge of life. This confirms the argument previously advanced that the empirical study of evolution leaves Bergson with an hypothesis of a something which is inexplicable in mechanical terms, an unexplained remainder, so that when he says that he "divines" something beneath the external appearance, his language can only be taken as metaphorical, and as conveying nothing positive. This is clear, besides, from some of Bergson's expressions towards the end of the chapter. "The evolution of life, looked at from this point of view, takes a more precise meaning, *although we cannot subsume it under an actual idea.*" "*It is as if* a large current of consciousness had penetrated into matter." "The facts which we have just passed in review *suggest the idea of connecting life with consciousness itself, or perhaps with something which resembles it.*"

But in spite of this, the empirical study of evolution is of great importance in Bergson's mind, for his theory of knowledge depends on his metaphysic, and his metaphysic, in turn, receives large support from the empirical study of evolution. "The problem of knowledge" is one with "the problem of metaphysic," and "both depend upon experience." "On the one hand, if the intelligence follows the direction of matter, and the intuition that of life, it will be necessary to compress both so as to extract from them the quintessence of their object. Metaphysic will then be suspended from the theory of knowledge. But on the other hand, if consciousness is thus divided into intuition and intelligence, it is by the necessity of adapting itself to matter, and also, at the same time, of following the current of life. The division of consciousness into two would then be due to the double form of the real, and the theory of

knowledge ought to be dependent upon metaphysic. As a matter of fact, each of these two researches leads to the other: they form a circle, and the circle can have for centre only the empirical study of evolution." Indeed, the empirical study of evolution is undertaken in order to show that the spiritual force in man is at once intelligence and intuition, that life, *i.e.* consciousness directed through matter, took two directions. It either fixed its attention on its own peculiar movement, and so was orientated in the direction of intuition, though compelled to issue in instinct; or it fixed its attention on the matter through which it passed, and so was orientated in the direction of intelligence. But which faculty is it that undertakes the empirical study of evolution? If intelligence, it is absolutely certain, on Bergson's premisses, that it will grasp nothing more of the meaning of life than what can be expressed in purely mechanical categories. And it does not appear how any study of evolution by means of intelligence, however extended and however complicated the study might be, would ever lead the mind to the grasp of a reality which differs in nature from intelligence. Yet it must be intelligence which undertakes the empirical study of evolution. At the end of his investigations into evolution, as we have already seen, Bergson is left with a mere hypothesis of an ungraspable something, which assumes meaning only when we interpret it in terms of the nature of the psychical force which we know directly in our own consciousness. The empirical study of evolution throws no new light on the nature of that psychical force.

Bergson, however, maintains that it does. He founds upon his study of evolution a distinction between two forms of knowledge—instinct and intelligence —which are "opposed," "radically different" ways of

knowing, but which, nevertheless, are "complementary" the one of the other. Let us examine his procedure in the establishment of this difference. He places the date of man's appearance upon the earth at the time when the first weapons, the first implements, were fashioned, and starting out from the conception of man as *Homo Faber*, he proceeds to show how the psychical cause of the organization of the human organism has developed into intelligence, in the narrow sense in which he himself understands it. His account of this development is intensely interesting, and it would be absurd to deny that intelligence has been developed or brought to its present state of perfection under the pressure of those needs of man which arise out of the relation of his organism to the material world which surrounds it. Bergson has made very clear how close the connection is between mechanical invention and the perfecting of mechanical thought. "The intelligently constructed instrument," he says, "reacts upon the nature of the being who has fashioned it, for in calling a new function into exercise it confers on him, so to speak, a richer organization, being an artificial organ which prolongs the natural organism. For each need which it satisfies it creates a new need, and so, instead of closing, as instinct does, the circle of action in which the animal tends to move automatically, it opens to this activity an indefinite field into which it pushes it further and further and makes it more and more free."[1] Further, Bergson has made clear the kind of regulative principles which thought would probably develop in its process of knowing matter. Or, as he puts it: "The intelligence naturally makes use of relations of equivalent to equivalent, of contained to containing, of cause to effect, etc. . . . In whatsoever

[1] *É. C.* p. 153 (Eng. Tr. p. 148).

manner one effects the analysis of thought, one will always reach one or several general categories, of which the mind has an innate knowledge, since it makes a natural use of them."[1] All this is good. But what, precisely, is its value? First of all, it should be noted that there is no actual divining, no effort of intuition in it. Nothing more is required for Bergson's procedure here than the ordinary exercise of ordinary powers of observation, intelligence, and hypothesis. All that Bergson has done is to take a certain conception of the nature of intelligence, to regard the intelligence as, in its skeleton, a set of forms, or simply as one form, and to attempt to show how intelligence, thus viewed, has evolved from a greater reality. He has shown that in man, regarded as an animal organism endued with the power of constructing instruments out of matter, the spiritual force will develop into intelligence, understood as Bergson wishes it to be understood. Let us suppose that he has established his position. He has assumed man as an animal organism merely, and it is this assumption, here again, which gives validity to his conclusion. But man, at however low a stage we place him, exhibits a sense of duty, and we might quite legitimately date the appearance of man on the earth from the day when a being possessed of that sense came upon the scene. If we were to begin from that point of view, we could, without doing violence to Bergson's argument, the validity of which may be admitted within its limits, show that the faculty of knowledge would be more than a merely mechanical intelligence. Let us admit that the faculty of judgment arises out of "functional situations." These, in the case of human beings,

[1] *E.C.* p. 161 (Eng. Tr. p. 156).

demand not merely a knowledge of matter, but of life and spirit, if they are to be met successfully. We might, then, admit that "the essential function of the intelligence is to distinguish, in given circumstances, the means of getting out of a difficulty," and yet hold that the escape from the difficulty would demand a knowledge of natures akin to our own, and of living beings. Consequently one cannot regard Bergson as having proved, from an empirical study of evolution, that the human mind is incapable of knowing anything but the spatial. The being whom he assumes, of whose mind he traces the development, is a mere abstraction, and his conclusion is so far short of the complete truth. It may be true that he has thrown some light on the development of one aspect of the human intelligence—the mechanical aspect—but he has not, in any sense, shown that this aspect exhausts the nature of the human faculty of knowledge.

But, it may further be asked, does not the contrast which Bergson makes between instinct and intelligence compel us to recognize the essential limits of intelligence? Bergson's position here is that a finite *élan*, psychical in nature (hypothetical, be it observed, at this stage in his thought), has been "impelled through matter," which moves in an opposite direction. "Instinct and intelligence represent two equally admirable divergent solutions" of the problem which offered itself to this psychical force, viz. how to overcome the necessity of matter. Intelligence, as we have seen, fixes its attention upon the matter against which it struggles, and insinuates itself, so to speak, into matter, thereby adopting its form. Instinct, on the contrary, "moulds itself on the form of life." "Instinct proceeds organically." The whole

point of Bergson's distinction lies in the fact that he contrasts instinct and intelligence as faculties of *knowledge*, not merely as faculties of action. He holds, it is true, that they are opposed ways of acting on inert matter. But he does not stop there. He goes on to establish, on the basis of these different methods of action, two different kinds of knowing. Now, it seems unquestionably incompetent to contrast instinct and intelligence as two different kinds of knowledge. It is doubtful if the epithet knowledge be applicable to instinct at all. We are perfectly justified in describing certain forms of behaviour as "instinctive" behaviour, but when it comes to be a question of the knowledge, if any, involved in this behaviour, we cannot contrast it with our own way of knowing, for it is only in terms of our own knowledge that we can interpret the apparent knowledge implied in this "instinctive" behaviour. We cannot help being anthropomorphic here. Professor Stout argues, I think convincingly, that there is no special form of psychical activity which requires to be distinguished by the technical term "instinct." "If the term is to have a distinctive and useful meaning it must refer, directly, not to a form of psychical process, but to a purely biological adaptation comparable to the pre-arrangement of structure and functions which in human beings subserves the digestion of food." Of course, within the sphere of biological adaptation certain differentia of instinctive adaptation may be insisted upon, such as the presence of "conative impulse," of "unity and continuity of attention." M'Dougall and Lloyd Morgan are in agreement with Stout here. The curious fact is that Bergson's own argument gives weight to the above contention. "The most essential of the primary instincts are really vital processes." He compares each bee in the swarm to a cell in a living body, and says: "The

instinct which animates the bee blends with the force by which the cell is animated, or merely prolongs it. In extreme cases like this, it coincides with the work of organization."

Further, Bergson argues, instinct is orientated towards unconsciousness, so that if you attribute knowledge to instinct it must be, in so far as instinctive, unconscious knowledge. Bergson does not hesitate to claim that there may be such knowledge. Knowledge is said to be *acted* and "unconscious" in the case of instinct; it is spoken of as "virtual," "implicit," "slumbering." Conscious knowledge is regarded as differing in degree rather than in kind from unconscious or acted knowledge. It is in this connection that the quite original and striking distinction between two kinds of unconsciousness is introduced. Now this contention for a merely relative distinction between unconscious and conscious knowledge harbours confusion by overlooking the fundamental characteristic of thought, and is introduced only to buttress up a preconceived theory. Thought, so far as we know it, is always the thought of a subject, and the inseparable quality of a thinking subject is consciousness. Bergson speaks of consciousness as "a light immanent in the zone of possible actions or virtual activity," but this is a metaphor, and one that misleads. Consciousness is not a concrete something which has an independent existence of its own; it is, taken by itself, a mere abstraction; it is a quality, an attribute of a thinking subject, and we know no thinking subject which does not possess this attribute, just as, inversely, we can form no clear idea of consciousness which is not an attribute of a thinking subject. Bergson's example of an annulled consciousness is unconvincing. In somnambulistic action the subject is unconscious to

begin with, so that we can scarcely speak of the representation in this case as "being obstructed by action." There is no evidence that there was, or is, any representation in the case. The hypothesis is quite intelligible that the conditions of sleep-walking are all to be found in the body itself. Again, in the case of action when the subject is awake, as soon as an action becomes automatic there is no longer any question of knowledge at all—it is merely a case of mechanical response to stimulus. An idea or representation does not enter as a link into the chain of events at all. Nor can we truthfully say here that consciousness is annulled. Thought is set free for activity in some other direction, and consciousness will invariably be found to accompany this activity. In any case, it seems wholly devoid of meaning to speak of "annulled" consciousness in the case of instinct, for there is no evidence to show that consciousness has ever emerged in instinctive action as such—a fact which, indeed, Bergson's whole argument goes to establish. We surely cannot speak with any show of intelligence of the annulling of that which we have no reason to believe ever existed. We must insist on the fundamental distinction between instinctive action, which, as such, is unconscious, and action which involves consciousness and all that that implies, viz. awareness of an object, activity of will, and experience of feeling. Instinctive action, when regarded merely as action, lacks all the characteristics which mark knowledge, and nothing but confusion of thought can arise from the refusal to make a fundamental distinction between the two. So long as we keep on the plane of action there is not the least discernible difference between instinctive behaviour and the process of digestion.

When we leave the plane of action and enquire into

the knowledge implied in instinctive behaviour, we find that instinct is always marked by consciousness, and therefore by intelligence. If this be so, the instinctive action, in which, Bergson holds, the idea is obstructed by the action, is then a mere ideal limit; it is reached by the elimination of something, and what is left out is the consciousness part, the knowledge part, of the whole. Now, this is just what has happened. Instinctive action is always action of an individual organism, which, as such, is, in Bergson's own phrase, "a centre of indetermination," and the action of which, consequently, implies choice, which in turn involves conscious perception, however elementary, feelings of preference, however vaguely felt, and awareness, however dim, of its own activity. Bergson extrudes these facts from the sphere of instinctive behaviour, and then proceeds to give the name of knowledge—"acted," "virtual," "implicit," "slumbering" knowledge, it is true—to the resultant abstraction. This action, it is necessary to insist, is a mere abstraction, and, as such, admits of a complete explanation in mechanical terms, just as the action of the human body, when abstracted from the conscious purposes which it serves, as well as from those purposes in the service of which it has come to assume the particular form which it now exhibits, may be explained in terms of physics.

An empirical study of what we call instinctive action reveals the presence of two factors—first, a definitely constituted nervous system which is inherited, and so constituted that the organism behaves in a definite way in particular circumstances; and second, indications from which we conclude that the animal has a rudimentary "discernment" which is akin to our intelligence. In the words of Professor Stout: Animals, in their instinctive actions, "apparently wait, watch, are on the

alert. They also behave as if they appreciated a difference between relative success and failure, trying again when they do not succeed at first, and varying their procedure so far as it is felt as unsuccessful." In other words, animals which act instinctively are capable of profiting by experience in an intelligent way. And Stout argues that this fact of "intelligent alteration of behaviour" can be accounted for only on the supposition that "the original experience must be more or less intelligent." Now, the first-mentioned factor in instinctive action, the inherited nervous constitution, has been produced through a series of purposive actions performed by organisms in which intelligence and will have been incipiently present throughout, a series which embraces an indefinite multitude of individual organisms. In this sense, we may heartily agree with Bergson that a psychical force is the organizing cause of the organism which acts instinctively. But the nature of this organizing cause remains entirely hypothetical, until it is interpreted in terms of its highest manifestation in the reflective consciousness. The "empirical study of evolution" does not, then, demand that we should admit two different ways of knowing—by means of intelligence, on the one hand, and by means of a faculty akin to instinct, on the other.

There is just one more point upon which we may touch in connection with the distinction between instinct and intelligence. Bergson emphasizes the fact that while intelligence deals with the outsides of things, and is incompetent to know life, instinct penetrates by *sympathy* (in the etymological sense of the word) to the inner flux of reality. Between the *Sphex*, *e.g.*, and its victim, there is this sympathy, which instructs it from within, so to speak, upon the vulnerability of the grub. But, unfortunately for Bergson's theory, the

accuracy of the knowledge of the *Sphex* in the example chosen has been questioned and disproved. The same criticism is relevant to most of the examples selected. Surely a moment's reflection is sufficient to convince us that the knowledge which intelligent man has gained of the life of other species, as well as of his own life, surpasses infinitely in accuracy and extent that which the most wonderful instinctive action presupposes. The action of the *Sitaris* is wonderful only when it is considered as the action of the *Sitaris*. If you could imagine that insect as endowed with an intelligence as highly developed as that of man the wonder would melt away. Further, these examples are two-edged. The action of the *Sitaris*, for example, seems to display a great amount of foresight. This is awkward for Bergson's argument, for prediction is possible only by means of intelligence, and intelligence predicts only by losing sight of all that is characteristic of life or duration. This argument is set out in detail in Chapter III. of the *Essai*. But if "the conduct of the insect outlines the representation of determined things which exist or are being produced in precise points of space and time," does not this point to the fact that the knowledge implicit in instinctive behaviour is of the same nature as that of intelligent beings? Here again, then, we are forced towards the conclusion that the empirical study of evolution, apart from the transportation of a metaphysical theory, into the domain of science, does not afford any direct support for Bergson's view that there are two distinct and opposed ways of knowing.

If the complete nature of our own mental life (which, I imagine Bergson would admit, must always remain the point of departure in our attempts at the explanation of all manifestations of life) is taken account of as it reveals itself to beings such as we, beings endowed

with the power of reflection, it will be no longer necessary to postulate as a principle of metaphysical explanation a blind "will to live," as Schopenhauer has done, Nietzsche's equally blind *Will zur Macht*, or Bergson's "vital instinct." If we regard conscious human activity as that which Fouillée calls *la volonté de conscience*, that in which ideas are "forces," in which "there is nothing inactive, nothing which is a pure reflex, an epiphenomenon, a powerless and lifeless shadow; in which, on the contrary, all is causing and caused, in which everything enters as an integral and influential factor in a 'becoming' where the being at once assumes consciousness of itself and direction of itself;" if we cease to regard the intelligence as a diagrammatic schema, a fixed mould or form, or an apparatus like a cinematographic camera which is a mere abstraction, and not the intelligence of any living being; if we consider the characteristics of rational thought, as it reveals itself in the actual course of experience, there will be no need to distinguish sharply between instinct and intelligence, or between intelligence and will, to suppose "a confused fringe of intuition" surrounding our faculty of clear thinking. Intelligence is what it, in its concrete living progress, reveals itself to reflection to be. Self-conscious life is the highest manifestation of life which we know, and the highest which we *can* know. All the other forms of life, then, which we are capable of *knowing*, must of necessity be known in terms of our own self-conscious life. As Professor Caldwell puts it: "Thought is not *outside* things, but *latent* in them. My thought comes out of my organic consciousness, and my organic consciousness comes out of the organic life of the world as a whole; so that my thought, when I am healthy, is a *quasi* focus or internalization of the life of that world,

and valuable, therefore, as a kind of epitome of reality."[1] The same truth is at the basis of a German thinker's utterance that "the criticism of knowledge *is* Biology."[2]

Bergson, it will be said, admits all or most of this: it is the very centre of his system. His aim is to establish knowledge as "an integral part of reality." Admitted; but all that it is necessary to show at this stage is that the spectacle of evolution, when "empirically studied," does not "suggest a certain conception of knowledge and also a certain conception of metaphysic which reciprocally imply each other." The empirical study of evolution "suggests" merely the necessity of interpreting the world from a higher point of view than the mechanical. That interpretation may be achieved, within the limits which our humanity imposes upon us, by taking as our principle of explanation the highest manifestation of life which is available for us, namely, self-consciousness. Further, and this is the crucial point, if we take this principle of explanation in its concrete fulness, there is no necessity to split it up, as Bergson does, into two distinct opposing parts—intelligence, which is essentially a fixed "form," and will or duration, which is pure activity. This cleaving of our faculty of knowledge is not suggested by an intelligent scrutiny of the evolution process. The fact which is supposed to suggest the Bergsonian metaphysic and theory of knowledge is the distinction which he makes between instinct and intelligence. Far, however, from suggesting a certain metaphysic and a certain theory of knowledge which reciprocally imply each other, this distinction is itself suggested by Bergson's peculiar metaphysical view of life and matter, and his

[1] *Schopenhauer's System in its Philosophical Significance* (Caldwell), p. 124.

[2] *Prolegomena zur Natur-philosophie* (Hermann Graf Keyserling), p. 76.

theory of knowledge, according to which intuition and intelligence are two opposed ways of knowing. In these circumstances, the conclusion is justified that the narrow view of reason taken by Bergson, and his opposition of it to intuition, do not receive any support from a scientific study of the process of evolution.

The question must now be faced as to whether this narrow view of reason is adequately supported by Bergson's original account of the ideal genesis of intelligence. This is the crux of this part of his philosophy. The account appears in Chapter III. of *L'Evolution Créatrice*, but it was adumbrated in the *Essai*, when the contrast was drawn between the spatialized, "refracted," "solidified" self "with well-defined states" and the "inner self" in which *succeeding each other* means *melting into one another* and forming an organic whole. The soul actually becomes solidified through the action upon the body of external objects, and under the necessities of language. The living ideas become lifeless and impersonal, are set side by side in a void, so to speak, an empty *ego*, which, when analysed, turns out to be the form of space. This thought is developed in the later work, and it is to it that we may first confine our attention.

The problem which Bergson sets before himself here is no less than to "engender intelligence, by setting out from the 'consciousness' which envelops it"; actually to live the degradation from pure spirit, which is extra-spatial, to spatiality, and so to bring to birth the form of intelligence. This seems a sufficiently difficult enterprise; but we are invited not only "to replace our being in our will," but to go a step further and replace "our will itself in the impulsion which it prolongs," and to live over again the genesis of matter. Bergson's position here with regard to the creation of matter has

been already stated in detail. When we remove the metaphors in which his thought is swaddled, and seek to arrive at the meaning which underlies them, the theory might be generally stated thus: If we call the original principle of the universe God, and if we understand that He is incessant life, action, freedom, then we may conceive a momentary interruption taking place in His creative activity, and this interruption, which would be the same as the inversion of the creative current, would constitute the birth of a material world. It would become split off, so to speak (it is difficult to avoid the use of metaphors here), and, as it is separated from its principle, it immediately begins its degradation towards space. But it is opposed by that remnant of the original impulsion which strives within it. Thus, in our material world, and probably in every material world, we find two movements. "Life is a movement; materiality is the inverse movement, and each of these two movements is simple, the matter which forms a world being one undivided flux, and undivided, too, the life which courses through it and carves out in it living beings." As we have just seen, matter, if it were unopposed, would regress into homogeneous space, but it never entirely reaches the end of its movement.

Now, this theory appears to bristle with difficulties. There seems to be no reason at all why this original pure creative activity should ever be interrupted; and even if it does throw out so many jets, is there any reason to believe that these jets should at once begin to "fall"? There seems to be every reason why they should continue their free activity—their essential nature, their *whole* nature, in fact, is freedom. The analogy of creation in our world does not help us here, for divisions take place in the vital current, as Bergson himself has argued, owing to the opposition of matter, and the

existence of matter must not be assumed as a factor in its own genesis. Further, what precisely does Bergson mean when he says that matter is a movement the direction of which is opposed to that of life? Does he mean that life and matter have started from a common point, and that, while life ascends from that point, matter descends from it? If so, it is difficult to see how they will ever come to oppose one another. Does he mean that one is a movement towards disintegration, while the other is a movement towards more perfect organization? Then any two stages will differ merely in degree, and it will be impossible to deny definitely that there is only a *single* movement, which may be turned towards one extreme or the other, we cannot tell which. The truth is that this is an interesting and ingenious cosmic speculation, but our line becomes too short to fathom the depths in which we find ourselves long before we are able to enter into the Divine Mind and live with Him the creation of a world.

But the difficulties connected with the theory of matter must be pushed further. Matter, Bergson says, has not reached the end of its natural movement. This can only mean that it has not ceased to "dure," that it is still making history, even though its creative power is decreasing. This, I take it, is what Bergson means when he says that "analysis resolves matter into elementary vibrations, of which the shortest are of very feeble duration, almost, but not completely, vanishing."[1] Now, in *Matière et Mémoire*, he speaks of matter, after the manner of Descartes, as "a present which is always beginning again," an "incessant repetition of the past," as "subject to necessity," as "unfolding a series of moments, each of which is the equivalent of the succeeding moment and may be deduced from it." We find

[1] *E.C.* p. 219 (Eng. Tr. p. 212).

him, however, *contrasting*, in the passage quoted above from *L'Evolution Créatrice*, matter as it actually reveals itself with "an existence consisting in an unceasingly recommencing present." The contradiction here involved is manifest. Finally, "the order in matter is intelligence," and intelligence is implicitly contained in the original creative force; yet matter is the movement *opposed* to the life movement—in fact, the order in matter, the "automatic" order, appears only through the *negation* of the "willed" order. One is forced to the conclusion that Bergson has no clear idea of matter, or, if he has, he has not made his meaning plain.

It is very important for the coherence of the results of the application of his method that we should be certain on the point, and it is just here that we are disappointed. The extent of this disappointment will be clear when we have sought to bring to birth the categories of intelligence. The guiding principle here is that "action breaks the circle" in which any criticism of the faculty of knowledge encloses us. If this meant only that reflection cannot be prior to action, we might unhesitatingly adopt it, but it means more than that. In the action of which Bergson speaks we are supposed to "transcend intelligence," to pass beyond reflection, to rise above "conceptual thought" and enter into the "indistinct fringe" which surrounds it. It is necessary "to push intelligence beyond itself by means of an act of will." This effort "introduces us into something vaster," in which "pure understanding has got carved out," and "from which it has had to detach itself." *Thought* thus passes beyond itself, and we enter into a sphere where cognition and will are identical, where there is no longer any separation between that which knows and that which is known. We achieve this when, in acting *freely*, we replunge into the vital

current, when we become an indivisible and freely acting will. If, from this upper limit, we now pass, by relaxation of the will, towards the extremely opposite limit, memory and will are more and more eliminated, and at the end, our mental life (if life it could be called) would consist in the continued repetition of a single plane of inert mental states, which would be "perfectly external" to one another, and the reciprocal independence of which would be complete. At this limit the self would be entirely spatialized. In this way we should have brought space to birth in our consciousness. This materialization of the self has been followed in some detail in the first and second chapters of this book.

Now, it must be admitted that all intellectual process, *i.e.* all conceptual thought, implies the development of difference within the psychical content which may be regarded as the ultimate subject of all predication, and, at first sight, it might seem as if Bergson's account of the differentiation of pure duration, which takes place on occasion of perception or conception, is an attempt to give a psychological account of this delicate mental process, that is to say, to follow the movement of mind in its act of forming judgments. But the article on *L'Effort Intellectuel* dissipates such a notion. In this essay Bergson examines separately the various species of intellectual work, the effort of memory, the effort of intellection in general—meaning by that the effort which we exert in the attempt to comprehend and to interpret—and finally the effort of creative imagination or invention which he considers the highest species of intellectual effort. After a brilliant examination of these various species of mental work, he concludes that "intellectual work consists in leading one and the same representation along different planes of consciousness in a direction which goes from the abstract

to the concrete, from the diagrammatic representation to the image." Or again: "There is mental effort only where there are intellectual elements in process of organization." Thus Bergson is able, he thinks, "to explain the effort of the intelligence without setting out from the intelligence itself, by a certain composition or a certain interference of intellectual elements amongst themselves." It is clear that intellectual effort is not to be identified with judgment here. The term "judgment" is not mentioned, and further, the explanation brings into requisition no more than the contents of spirit and the movements of the body. One can scarcely speak of judgment when the judging intelligence has been explicitly excluded. The consciousness of effort is the feeling of interplay between mental states, and who or what feels the effort Bergson does not say.

It is a pity that Bergson has not attempted to show the distinction and the relation between this fact of intellectual effort and what is ordinarily called the act of judgment. In no part of his work has he dealt with the fact of judgment. By implication judgment is treated as if it were the act of imposing an empty universal clearly held before the mind on a perception into the formation of which judgment has not yet entered. Thought, as ordinarily understood, he asserts, is "going from concepts to things."

In the absence of any treatment of judgment by Bergson, there can be no reason for retreating from the position that the primary fact of knowledge is judgment, introduction of difference, and that judgment is not the bringing together of two ideas which have lain loose and separate, or of a perception and a concept. Judgment is the act by means of which evolution of percept and concept takes place contemporaneously

within knowledge. Take, for example, the simple judgment "the bird flies." We have not first the idea of a bird and the idea of flight, which we afterwards connect in a judgment. The initial fact is our awareness of the concrete something which becomes an object of knowledge only when through the introduction of difference we are in a position to make some such statement as "the bird flies"—*i.e.* the object of perception becomes defined in knowledge by the predication of the attribute of flight. Until this differentiation is made, we have no *knowledge* of the object beyond the awareness of its existence (which also involves judgment in its differentiation from the self). Judgment is the very act of bringing knowledge to birth. It is at the same time, in a sense, the bringing of reality to birth, for reality exists *for us* only when it comes within the scope of our judgment. In a very real sense there is for us no existence without knowledge, a fact which is implied in the statement that there is for us no subject without a predicate. Now in this evolution of knowledge the predicate or conceptual element is not brought to the thing from without. It is evolved from within; it is the thing in one of its aspects. Where man can make no judgment, he can have no knowledge.

In the *Prolegomena* Kant makes a distinction between *Erfahrungsurteile* (judgments of experience) and *Wahrnehmungsurteile* (judgments of perception), and he understands by the former empirical judgments in so far as they have objective validity, by the latter empirical judgments which are merely subjectively valid. In judgments of perception there is merely a succession of ideas, as for example in the successive ideas "the sun shining on a stone," "the stone becoming hot"; in judgments of experience there is a universally valid

connection asserted in a world of universally valid connections, as for example in the judgment "the sun heats the stone." In the second case, the categories are brought into play; in the first case, not. Now, while the distinction, as stated by Kant, is not free from objection, while he is not warranted in calling judgments of perception judgments at all, it indicates an important difference between two planes of mind which has been made clear in Professor S. S. Laurie's distinction between the "attuent" consciousness of the animal and the rational consciousness of man, and the consequent distinction between "recepts" and percepts. On the level of the "attuent" consciousness images of objects are reflected, as it were, in the consciousness which passively receives them; on the level of rational consciousness there is always judgment—conceptions from an integral part of the percepts. It may not be necessary to admit a purely receptive stage even in the animal consciousness, however nearly this limit may be approached in the lower stages of animal life. It may be necessary to insist that a purposeful, unifying consciousness acts in the formation of the vaguest idea, even in the life of the animal in which thought makes its closest approach to pure feeling. But behind the distinction made by Kant and Laurie respectively, there is a very real difference which must be insisted on—the difference between association of ideas, which, we might almost say, is the normal procedure of the mind of the animal, and that of reasoning, which is the evolution of knowledge, incipient only in the animal consciousness, but fully developed in the mind of man. On the association level, Kant rightly contends we are not on the plane of knowledge at all; the ideas on this level are a deposit of the rational activity of mind. It is not amongst these that reason moves; its activity is

always the evolution of universal objective connections in a world of abiding objects. As Kant expresses it: "Judgments of experience always demand, over and above the image of sensible perception, certain *conceptions originally produced in the understanding*, which make them *objectively valid*."[1] If this be so, then in every movement of rational thought, in every judgment, one or other of the categories is implied, and consequently the unity of consciousness from which they spring.

If this view of judgment and a unity of consciousness as essential to knowledge be correct, it is difficult to see how Bergson's account of the degradation of spirit into intelligence can be accepted. For what does this spatialization of the self and concomitant emergence of the intelligence mean? It involves the postulate that the more complete the descent from pure spirit, and the nearer the approach to pure space, the more perfect is the intelligence. Now the characteristic of space is mutual externality, reciprocal independence of parts, consequently the characteristics of spatialized consciousness must be the same, *i.e.* intelligence finds its perfect realization on the association level, a level on which, as we have seen, rational activity has no place, which is, indeed, a mechanical deposit of such activity. But there can be no doubt concerning Bergson's position here. The intellectual self, he argues in the *Essai*, is an outer crust of juxtaposed elements which have been externalized in biological and social interests. This thesis is developed in *Matière et Mémoire*, where the process of externalization is followed

[1] *Erfahrungsurteile erfordern jederzeit, über die Vorstellung der sinnlichen Anschauung, noch besondere im Verstande ursprünglich erzeugte Begriffe, welche es eben machen, dass das Erfahrungsurteil objectiv gültig ist.* Kant, *Prolegomena*, § 18.

in detail. It reaches its climax in the third chapter of *L'Evolution Créatrice*, in which the progressive adaptation of intelligence to matter is pursued.

The underlying motive of Bergson's thought in this direction is one to which reference has already been made, viz. the principle that the mind must become that which it knows. But if the preceding analysis of the act of knowledge be correct, then the essential feature of knowledge demands the direct contradiction of this principle. Knowledge is not identical with being, whether this be denominated activity, becoming, or immutability. Any attempt to identify the two leads to the darkness of Spinozism. Knowledge, at whatever stage we come upon it, is invariably knowledge of something. I, conscious of something—that expresses the supreme relation beyond which human knowledge is not found. Knowledge *is* that relation; remove either term, and you destroy the relation—*i.e.* you destroy knowledge.

On Bergson's supposition, we set out from pure activity, having elevated ourselves beyond ourselves to a point at which knowledge and activity coincide. We pass, in our descent, through the phases of what is ordinarily called knowledge, in which subject and object are differentiated; in which the degree of consciousness is determined by the proportion of the "virtual activity" of the subject to his "real activity"; in which our knowledge is, and must be, purely conceptual. Finally, at the opposite limit, having degraded ourselves beneath ourselves, we reach a point at which subject and object again coincide, and we actually *are* matter, and, at the extremest limit of all, pure space. But at each of these limits *knowledge* would disappear. At the higher limit the object disappears; all predicates sink back into the subject. At the lower limit the

subject vanishes, dissipated into predications which nobody makes. At either limit *knowledge* is transcended in a mystical *act.*

It is the lower limit with which, at present, we are concerned. Let us, in order to meet Bergson here, grant for the moment that a self has begun this regression towards space. It is surely obvious that as will and memory, and, with these, judgment, are progressively eliminated, knowledge just as progressively vanishes, and that if they were to become zero, at that very moment consciousness would disappear.

"Absolute passivity" would involve absolute unconsciousness. If this regression ever entirely took place, *I* should not see the bringing to birth of space, for in the process *I* should disappear. Bergson is, in fact, dealing here simply with a limiting conception. Possessed of the idea of space, a self may imagine the content of its consciousness gradually spreading itself out on a level plane, but the *self*, as well as the psychical "states," is a necessary factor, and this self, as an organic whole possessed of, amongst others, the guiding conception of space, may mechanize or spatialize its own so-called content without thereby itself becoming materialized, without "descending in the direction of space." That would happen only if we were compelled to identify the psychical "states" of the self with the self itself, that is, if we were compelled to admit that the self may be analysed, without remainder, into its contents.

If, now, we connect the account of the genesis of the intellectual form with the account of the genesis of matter, grave difficulties arise. It has already been pointed out that, according to Bergson's view in *L'Evolution Créatrice*, "matter is extended without being absolutely extended," that there is interaction between

all its parts. It follows that if the inversion of the same movement has created at once the intellectuality of mind and the materiality of things, it is difficult to see why, in the case of mind, intellectuality should assume the extreme form of space, whereas matter never becomes entirely spatialized. They do not, after all, "reach at last a common form." Bergson himself seems to recognize this. "Our perception," he says, "performs a dissection of matter which is always too precise, always subordinated to the needs of action, and consequently always in need of revision. Our science, which aspires to assume a mathematical form, unduly accentuates the spatiality of matter." One is puzzled, in the light of this utterance, at finding such an expression as that which occurs only two pages further on: "Physics comprehends its rôle when it pushes matter in the direction of spatiality."

But let us keep to the main point. How is it that intellectuality has assumed such an extreme form? We are told that "the mind prolongs to its end—*i.e.* to homogeneous space—the movement constitutive of materiality." Matter, we are told again, suggests to mind the more distinct representation of space. Matter gives to spirit the impetus towards space, but mind, once set on the way, outruns matter itself, and reaches, in representation, the goal to which matter aspires but never completely attains—*i.e.* pure space. But why should mind be so eager to go on to reach this spatialized form? One would have thought that its inherent nature would make it a most unwilling rival of matter in this respect. But suppose that it does go on, will it, by its process of repeated subdivision of the parts of matter, ever arrive at the conception of space as "an empty and homogeneous medium, infinite and infinitely divisible"? I do not think so. Space is

continuous throughout, and it is difficult to understand how a process of division, no matter how far it may be continued, will ever generate the idea of a continuous whole. It would leave us, at the best, with an infinite number of co-existing points. Further, a perfectly homogeneous medium *without quality* has no peculiar right to the name of space. It is, if it be anything, pure quantity. Space has qualities or properties of its own. It has, for example, three dimensions. Then, again, the conception of space as infinite requires some explanation. The mind's contact with matter would not generate in it the idea of *infinite* space, for there is no reason to regard matter as infinite. Bergson is here met by a difficulty similar to that which Locke encountered in the same connection, and he appeals, like Locke, to the imagination.

Once more, it becomes very difficult indeed to see how it can be maintained that mathematics "touches the absolute," and why mathematical laws or relations should be exalted above all other concepts. There is an order, "*approximately* mathematical, immanent in matter." "Laws mathematical in form can never be applied *completely* to matter; for that matter would have to be pure space, and to separate itself from duration." "One cannot insist too much on the artificial element in the mathematical form of a physical law, and, consequently, in our scientific knowledge of things." "Mathematics in general represents simply the direction in which matter refalls." These passages are quite in harmony with the view that matter has not reached the end of its movement, and they go to support the position which was adopted in the earlier works—viz. that mathematical knowledge is relative to our faculty of action, and has not any speculative value. It is rather disconcerting, then, to be told that mathematics

is a "veritable means of contact" with the Absolute. For purely speculative knowledge is not "approximate" or "artificial," or "conventional" in the least degree. This is the whole point of Bergson's philosophy. The difficulty here is not entirely removed by the expressive metaphor that "matter is ballasted, so to speak, with geometry." In the mouth of most idealistic philosophers this would mean that space is an inseparable aspect of all matter, organized and unorganized, and that mathematics is true of that aspect, and so is an abstract or hypothetical science. But for Bergson this interpretation is not available. Space is immanent in matter only in the sense that matter tends towards space as an ideal limit, so that mathematical science, after all, is not true of matter as it exists *now*. It is practically, approximately, *symbolically* true, and so cannot be "metaphysical" knowledge. The difficulty is increased when we remember that physical science, taken in its entirety, *tends* to approach the view of matter which is gained by means of intuition. "Science," Bergson says, "by an even more complete demonstration of the reciprocal action of all material points upon each other, returns, in spite of appearances, to the idea of a universal continuity. Science and consciousness are in fundamental agreement, provided that we regard consciousness in its most immediate data, and science in its remotest aspirations." The sole inadequacy of the physical sciences lies in their incompleteness; they cannot "embrace *en bloc* the totality of things, and place them exactly in their relations to each other." Now, of which matter are we to understand Bergson to be speaking here? Is it the matter which has not yet "separated itself from duration"; or is it of matter conceived as having reached the end of its movement?

If it is the former, then intelligence is capable of revealing the nature of duration, quality, and movement, and the necessity for an intuition disappears. If it is the latter, then we are back in the previous difficulty that this is merely an ideal matter, and scientific knowledge cannot be regarded as absolute knowledge even of matter.

Finally, Bergson says that intelligence, which he compares to a solid kernel, is not radically different from the fluid which surrounds it, but all his proof of the genesis of the intelligence goes to show that the order in matter, and so in intelligence, is, to use his own words, the "suppression," the "inversion," the "interruption" of the order in life, and that matter and life, and, consequently, intelligence and intuition, are two *opposed* movements. Bergson's ingenious theory of the ideal genesis of matter and of intelligence seems to raise more difficulties than it solves.

It was of supreme importance that Bergson should establish his position here, for it is the climax of his latest book, and in addition, the narrow view which he takes of reason was on its trial. So many unsolved difficulties beset his thought in this connection that we may conclude that he has not succeeded in establishing the conclusion that the form of intellectual knowledge is to be identified with space, or that it even tends towards such an identification.

It is not enough to have attempted to show that the arguments which Bergson has adduced are insufficient to warrant the limitations which he has placed upon the nature of intelligence. It is further necessary to see how he was led to what we have argued to be an illegitimate restriction of the province of reason. The clue to his narrowing of reason's powers is to be found in his acceptance of the view of the "form" of know-

ledge which Kant expounded in the *Critique of Pure Reason.* Kant had asked: "How is mathematics possible?" and "How is physics possible?" and his own reply was that we impose on reality a certain order which we find again in our mathematical and physical investigations. We impose the form of space on a given raw material, and we further take it up into the forms of the categories. The form of understanding must be of a certain nature if the physical science of Kant's day was to be explained. For Kant, the intelligence was primarily a faculty of establishing relations, and those relations were all mechanical. As Bergson himself puts it, "intelligence imposed its form on matter." Now, Bergson accepts the Kantian view of intelligence as a "form," while he seeks to avoid, as we have seen, the difficulties in Kant's position which arose from his illicit assumption of things-in-themselves, and from his untenable view that intelligence imposes its order on a formless matter. For Bergson, the "form" of intelligence and the order in matter arise in precisely the same way.

It is significant that in the years of Bergson's studentship the "official doctrine" in the University of Paris was "Kantism," which was summed up in the following propositions:

(1) There is no kind of knowledge other than scientific knowledge.

(2) There is no means of knowledge other than intelligence.

Bergson, while accepting the limitation of intelligence here implied, denies each of these propositions. There *is*, he avers, a kind of knowledge other than scientific knowledge—that is, metaphysical knowledge; and there *is* a means of knowledge other than intelligence—

intuition. There is nothing here to indicate that Bergson refuses to accept the Kantian view of intelligence, in essence, at least. In fact, we find him speaking of the moulds (*cadres*), *anterior to all experience, in which our experience comes to insert itself.* And again he speaks of intelligence as "only a form without matter," and of the "purely formal character of the intelligence." Intelligent beings possess "natural knowledge of very general relations, veritable *stuff* which the action peculiar to each intelligence will cut into more particular relations." This "form" of which he speaks is not the form of the "inner," "living," "qualitative," "dynamic" self which endures. It belongs to the "outer," "social," "solidified," "static" self, the spatial projection of the inner being.

In the *Essai*, Bergson characterizes the sharp distinction made by Kant "between the matter of consciousness and its form, between the homogeneous and the heterogeneous," as "this vital distinction." "We have," he says again, "assumed the existence of a homogeneous space, and, with Kant, distinguished this space from the matter which fills it. With him, we have admitted that homogeneous space is a form of our sensibility." He speaks of "the intuition, or rather the conception of an empty, homogeneous medium," and, finally, of "a principle of differentiation other than that of qualitative differentiation, and, therefore, a reality with no quality." One result, indeed, of the *Essai* is that Bergson gets rid of the distinction which Kant made between the forms of space and time, and leaves us with a sensibility possessing only the form of space. In *Matière et Mémoire* this thought is developed, and space is regarded "not as a property of things," but as "a diagrammatic design of our eventual action on matter."

It is not a form of knowledge, not "an essential condition of our faculty of knowing reality," not a "form of contemplation," but a form of action, a wholly ideal diagram of arbitrary and infinite divisibility, which we "throw beneath the continuity of sensible qualities, *i.e.* beneath concrete extensity." Kant had paid dearly for the necessity which he attributed to his forms of sensibility and categories of understanding as the contributions of mind to the concrete whole of knowledge. He had to purchase this necessary contribution at the price of the knowableness of both matter and spirit. Bergson sees this clearly, and he seeks to avoid the necessity of making this fatal bargain by:

(1) Regarding space as a form "*introduced into the real with a view to action* and not with a view to knowledge," and

(2) Regarding space as immanent in matter, and so not foreign to the form of perception.

On Bergson's theory, then, the ordinary faculty of knowledge, if it may be called so at all, distorts the real, but it does so in the interests of action. "Amorphous and inert space" is, then, the form of knowledge, in the sense that it is "the symbol of fixity and infinite divisibility" which we "thrust into extensity," not in order to *know* matter, but to *act* upon it. Its necessity is a practical necessity; it is not a necessary condition of our pure speculative knowledge of things; it is not necessary in the sense that it is given "*to begin with*, as the necessary condition of what comes to abide in it"; it is necessary only in the sense that it is "like an infinitely fine network which we stretch beneath material continuity *in order to make ourselves masters of it, to decompose it according to the plan of our activities and needs.*"

Up to this point, Bergson has accepted the Kantian view of space as a form of our ordinary faculty of knowledge, or of the faculty of scientific knowledge, but he has sought to escape the relativism or phenomenalism of the Kantian standpoint, not by questioning the view that space is contributed by the mind to a non-spatial "sensuous manifold," a chaos or mere multiplicity of unconnected impressions; not by asking whether space may be an essential aspect of reality, discerned by us but not contributed, but by holding that, although space is contributed by us to reality, and so more or less perverts our knowledge of reality, it is contributed in our practical capacity. We may, he considers, and must, transcend this practical point of view in pure knowledge. The essential point for the present purpose is that space, apart from the question of its "vital" or "speculative" value, is a form or diagrammatic design which has existence only in our minds.

In *L'Evolution Créatrice* this position is still further emphasized, and at the same time some advance in thought takes place. As, in the *Essai*, the form of time (as a homogeneous medium) was absorbed into the form of space, so, in *L'Evolution Créatrice*, all the categories of the understanding are subsumed under the one—space, and space becomes the single inexorable condition of knowledge by means of intelligence. We have just seen that space is a necessary condition of our perception of things, and here the whole trend of Bergson's thought is towards the identification of the form of knowledge with space. It is true that he defines the form as *the totality of the relations* which are established in the "matter" which is given by the faculties of perception in the brute state. These relations are established so as to constitute a systematic knowledge. But it becomes clear that the supreme category is that of space. All

the other so-called categories are provisional "*conceptual directions* of thought," somehow beaten out in the process of experience. It was pointed out earlier that he distinguishes between concepts and mathematical relations, and ascribes an absolute value to the latter. For Kant, intelligence, in Bergson's expressive phrase, "bathes in an atmosphere of spatiality." The same might be truthfully said of Bergson's own position, the only difference being that he seeks to *account for* the spatiality of intelligence. Physics is successful in explaining the nature of matter when it makes its explanation in mathematical laws. All the operations of our intelligence tend towards geometry as the goal at which they find their perfect achievement. "It is a latent geometry, immanent in our representation of space, which is the great spring of our intelligence and makes it go. Our intelligence tends naturally to space and mathematics."

We have already seen that, according to Bergson, induction and deduction depend for their validity upon a pure spatial intuition. Our inductions are certain in the exact proportion in which we sink the qualitative differences in the homogeneity of the space which subtends them, so that geometry is the ideal limit of our inductions as well as of our deductions. The concept of causation is not a necessary principle except in a mathematical form. The relation of external causability in physical science is "purely mathematical." In the closing chapters of *L'Evolution Créatrice*, Bergson argues, in his usual illuminating and suggestive style, that the Greek Philosophy of Ideas, developed through Plato, Aristotle, and Plotinus, represents the natural development of a metaphysic constructed by intelligence unaided and that this development illustrates the inherently cinematographic nature of the intelligence

which mechanizes or spatializes the real. Further, in the *Introduction à la Métaphysique*, he contrasts the method of "analysis" with that of intuition, and emphasizes the view that science, which proceeds by analysis, always goes "from concepts to things." "If science," he says, "is wholly a work of analysis or of conceptual representation . . . if it aims at being *an immense mathematic*, a single system of relations which imprisons the totality of the real in a net which it throws out before it, it becomes knowledge purely relative to the human understanding." He recognizes quite clearly that the science which Kant had in mind in his *Critique of Pure Reason* was "*this kind of universal mathematic*," and he holds that modern science, in so far as it is the work of pure intelligence, does tend to such a system. The universal mathematic, he says further, is what the world of ideas becomes when one supposes that the Idea consists in a relation or law. If we correlate all these statements, it becomes quite clear that space, for Bergson, is the form of intelligence, and if its task were completely achieved it would present reality to us as a single system of mathematical relations.

Now, one would have thought that the history of modern thought had made it plain that such an abstraction should be relegated without hesitation to the rubbish-heap of useless philosophical hypostatizations. In itself it is the intelligence of no one; it is a mere skeleton, and the world of reality which it would reveal to us would, in itself, be a valley of dry bones. If we set out from the view that the faculty of knowing is this skeleton, it is inevitable that difficulties will arise and confront us. In the first place, the consciousness which we have of ourselves as energizing, active beings, will compel us to supplement this mere framework of a

self, and this can be done only by the reinstatement of the will which has been initially left out. But in the nature of the case it will be impossible to fuse together these two disparate parts of the self; so that we shall have a self irreparably divided into a static intelligence on the one hand and a pure activity on the other. This is just what has happened in Bergson's case. He has, to begin with, set intelligence as a faculty of knowing (in the interests of action, it is true) over against reality. It is fixed and determined, a mere form. Then, underneath this inert framework of a self he has conceived another self, about which the only clear thing we can say is that it "becomes," that it is "duration," "pure activity." So that we have in the one being or person, these two contrary parts—two opposed selves, or at best one self which oscillates between two opposed forms, an intelligence-self on the one hand, a purely active self on the other. This primary division or rather opposition within the self inevitably works its way into the whole of the world which we know. Matter is *opposed* to spirit—they move in two contrary directions. Space is *opposed* to duration, as the absolutely homogeneous to the absolutely heterogeneous. Science is *opposed* to metaphysics—they are two different ways of knowing. The initial cleaving of the self into two is due to the illegitimate abstraction of one aspect of the concrete mental life, and the subsequent attempt to remedy the omission by the erection into independent reality of another aspect of that life.

This could have been avoided by recognizing the fact that the form of intelligence is an abstraction, and that the will is likewise an abstraction. The concrete fact is the organic self, the highest type of organism which we know. The will is the energizing of this rational

organism, and the form of intelligence expresses its fundamental modes of activity. The existence of this self consists in its activity, and in the so-called form there is really nothing inert, for though these fundamental relations or principles or categories are permanent elements in the structure of mind, their permanence does not imply inertness; if they ceased to be active factors in the development of knowledge their permanence would cease; they would disappear. Further, it is only in so far as they are abstract elements that their permanence can be regarded as that of monotonous changelessness. In the actual functioning of the self these principles realize themselves in an incessantly varying multiplicity of particular concrete cases. From this point of view the opposition between the permanent and the active element of mind disappears, and the opposition between the changeless and the becoming aspect of the universe as a whole, which is expressed in the contrast of space with time, of matter with spirit, also loses its force.

It has already been mentioned that in *L'Evolution Créatrice* there was an apparent advance which at first seems to lead us beyond the position that intelligence is a form and intellectual knowledge merely formal. That advance is suggested by the open avowal of the possibility of gaining metaphysical knowledge, a "grasp of contact with the absolute," by means of intelligence alone. In the earlier books the intelligence, with its form of space, is generally presented as a deformer of reality. This aspect of intelligence has, to say the least, the greater emphasis given to it, and there is little, if any, suggestion that mathematical knowledge is "absolute" knowledge. This is the general view of *Matière et Mémoire.* Intelligence "disarticulates," "disfigures," "disorganizes" matter; the intellect,

"enslaved to certain necessities of bodily life, has not followed the internal lines of the structure of things." Many other passages might be quoted, all of which rather lay stress on the fact that the knowledge, even of matter, with which intelligence furnishes us is relative to the contingencies of action. In *L'Evolution Créatrice*, however, the emphasis seems to fall on the thought that "action cannot move in the unreal," that matter "tends towards spatiality," is "ballasted," so to speak, with geometry, that "the same movement which issues in the determination of the mind in intelligence, *i.e.* in distinct concepts, leads matter to become separated into objects clearly external to one another," that "an identical process has had to carve out matter and intelligence at the same time, in a stuff which contains them both," and that there is an evident accord between them. Emphasis is laid on the approximation of intellectual knowledge of matter to the intuition of it. It becomes clearer here that the mathematical and physical sciences "tend to reveal reality in itself, absolute reality," and "become relative, or rather symbolic, when, in physico-chemistry, they invade the problems of life and consciousness." The only defect of physical science is that it has to "fragmentate matter" and "put the problems one by one." In other words, it cannot view the whole all at once. But the point emphasized is that "provided one considers only the general form of physics, and not the detail of its realization, one may say of it that it touches the absolute," and that the externality and relativity of our knowledge is replaced by an insight into the inner heart of being itself "through the combined and progressive development of science and philosophy."

This more fully developed view seems most hopeful, and, when it is at first clearly perceived, exercises a

good deal of fascination on the mind. Without Kant's postulate of "things-in-themselves," full value appears to be given to scientific knowledge on the one hand, and a sphere reserved for metaphysic on the other—a consummation devoutly to be wished! Intelligence takes us to the being of "brute matter," and intuition reveals to us in a flash, or in a series of flashes, the inner heart of life and consciousness. But, when the first spell is broken, and, in "a sifting humour," we begin to ask what this really means, we find that the advance is merely apparent. The existence of two forms of the "absolute" is implied, and these are known in two different ways. There "is a certain current of existence, and a current antagonistic to it"; there are two corresponding absolute forms of knowledge—pure intelligence on the one hand, and pure intuition on the other. The point to be emphasized is that these are ideal limits. *If* matter were to reach the end of its movements, mathematics would be a grasp of the absolute; *if* spirit were perfectly to conquer necessity, we, as spirit, should have to make no effort to instal ourselves at the heart of life, for we should live freedom, and feel ourselves doing so. In either case we should transcend the human point of view. So that when it is said that intelligence can bring us into contact with the absolute, it cannot be the intelligence of the middle state to which reference is made, for Bergson condemns the concepts into which we, as human beings, are compelled to articulate our experience if we are to know, as "relative," "symbolic," "mere provisional diagrammatic representations," as giving us only "a practical equivalent of the real." They are merely instruments, footholds in our descent to mathematics, which, as it is perfected, approximates to the intuition of matter. It thus becomes evident that the supposed advance is not

real. It is only as intelligence rids itself of every concept and confines itself to the pure form of space that its approximation to intuition, and, consequently, its grasp of the absolute, comes about. The formal nature of intellectual knowledge is here once more strongly emphasized.

The same conclusion emerges when an examination is made of the statement that physics, if we consider only its general form, and not the detail of its realization, touches the absolute. The absolute here cannot mean the qualitative universe which science has progressively articulated into a concrete system, for that would imply that the concepts through which our experience of nature is systematized represent actual articulations in nature, and this is contrary to Bergson's doctrine of the concept. It is only mathematical relations which attain to this validity. Therefore, when Bergson speaks of the general form of physics, he must have in mind the system of mathematical equations to which the laws of positive science are being reduced, and these are arrived at when intelligence leaves all the categories behind it and "bathes in spatiality."

It now becomes evident why some have maintained that we are watching, in the elaboration of Bergson's philosophy, the development of scepticism. At one extremity, knowledge of reality becomes purely formal; at the other, it becomes entirely inarticulate, for no predication can be made. As we have already seen, it is not open to Bergson to take the way of ordinary idealism, and to regard mathematics as a hypothetical science, dealing with ideal elements. Instead, he is logically driven to the startling conclusion, suggested in fragmentary sentences which seem to indicate the underlying impulsion, that mathematical knowledge is not true—it would be true only if matter reached the climax of its

development, or rather, disintegration. All avenues of knowledge appear to be closed. The glory of our humanity has departed. In so far as human, must we resign ourselves to the melancholy fact: *Ignoramus et ignorabimus*? Because we are what we are, we cannot know; if we are to know, we must become what we are not, and what, it may well be argued, we cannot be? If we are to know "brute" matter, we must *be* "brute" matter. If we are to know pure spirit, we must *be* pure spirit. And because we are neither "brute" matter nor pure spirit, we can know neither the one nor the other. This merely mocks the consummation of our impotence, and Bergson has no such end in view. He has the highest regard for the human intelligence, understood (as he understands it) as a useful instrument in the activity of life, and as a possible preliminary to metaphysical knowledge. All that will redeem us from this complete scepticism, however, is the clear proof that intuition can supply the place within knowledge of the powerless intelligence, which, while seeking to safeguard it, Bergson has suppressed. That proof must now be considered.

CHAPTER IV

THE NEED AND VALUE OF THE INTUITION OF TIME, MATTER AND FREEDOM

BERGSON applies the method of intuition, in the first place, to the life of the self, and, as we have seen, he arrives at a theory of time which is the centre of all his thought, for in lived time or psychical duration he finds the very "stuff" of existence. The *Essai* is, in a sense, the most important of all his works. Indeed, *L'Evolution Créatrice* is but the *Essai* "writ large," that is to say, it is an account of the life of the universe interpreted in terms of the life of the individual self; and *Matière et Memoire* is largely a development of the distinction made in Chapter II. of the *Essai* between the inner soul—pure spirit—and the outer, or spatialized self. The conception of time elaborated in this work demands, then, our special attention.

Analysis shows that Bergson, throughout his argument, has in view three ideas:

First: Space conceived as an empty, homogeneous medium.

Second: Time as the pure succession which our conscious states assume when our self lets itself "live."

Third: Time as a homogeneous medium in which we make distinctions and in which we count

—the time of reflective consciousness as it is postulated in mechanics.

His contention is that the third idea is a spurious concept, the origin of which may be explained. It is due to an interchange of elements taking place between pure space and pure duration, to the "trespassing of the idea of space upon pure consciousness." It is "the extensive symbol of true duration," a "fourth dimension of space," the ghost of space haunting the reflective consciousness.

Let us consider first the ideas of space and duration respectively, and next the process by which pure duration becomes spatialized time. Space, as we have already seen, is accepted as a form which is to be distinguished from the matter which fills it. Space is "a reality" as solid as sensations themselves, although of a different order. It is "an empty, homogeneous medium"; "a reality *with no quality*"—it is "self-sufficient," "existing without qualities of bodies." It is homogeneous, and "homogeneity consists in the absence of every quality." In this qualityless, homogeneous medium there is, of course, neither duration nor real succession. But what precisely does this mean? It means that what we call *successive* states of the material world conceived of as existing in this homogeneous medium are not successive; they are simply repetitions. The material world *repeats* its past. It exists in an eternal now in which it indefinitely dies and is reborn. In the material world there is relative position of points, simultaneity of parts. "Outside ourselves we should find only space, and consequently nothing but simultaneities, of which we could not even say that they are objectively successive, since succession can only be thought through *comparing* the present with the past." "We observe outside us at a given moment a whole

system of simultaneous positions; *of the simultaneities which preceded them nothing remains.*" The moments of the material world "do not *succeed* each other except for a consciousness which keeps them in mind." To put this as simply as possible—in a purely mechanical system, or in matter considered as an independently existing reality, there would be no difference between past, present, and future. If it could present itself in its entirety, at any moment, to a consciousness, it would be the same as it always has been, and not in any way different from what it ever will be. In such a system there is no *accumulation*, no *duration*—time counts for nothing.

This account of space and of the existence *in* space of a material world which does not endure lends itself to criticism in two respects. First: Is not a self-sufficient homogeneous medium, from which all quality is absent, an impossible conception? Can we conceive a reality *with no quality*? But second, if it be imagined as independently existing, there can be no reason for calling it space rather than anything else. In a pure, independently existing, homogeneous medium the distinction between "here" and "there" would disappear, along with all other qualitative distinctions. In the words of Professor Ward, "There is no here and there, no east and west in pure space. Its thoroughgoing relativity constitutes it an absolute; it is absolutely relative—a system of relations without a *fundamentum relationis*, and so a non-entity." We know space only in relation to external objects. Considered objectively, it is always a certain kind of order in objects: considered subjectively, it is merely a point of view from which we order our experience. The objects of our experience are such that they respond to our questions from this point of view, and the order which emerges in them is spatial order.

It is true that by a process of abstraction we may think away all qualities of the external world except its spatial properties. But what we then have is an ideal *space*; the *spatial or extensive* quality still remains as a quality of the material world. Within this ideal space, as such, which is the space of geometry, there is no "here" *qualitatively* different from a "not here." In such space points may be imagined which have no other characteristic than that of position. Any one of them can be arbitrarily taken as the starting-point, and the only difference between any two would be a difference of position relatively to each other. This merely emphasizes the ideality of space and the ultimate character of spatial quality.

We cannot attribute a self-sufficient existence to this ideal space, either as a "form of sensibility" or as an objective medium. The course which seems to be suggested, though perhaps not intentionally, by Kant in the *Transcendental Aesthetic* may be followed, and space be regarded as a ready-made "form" into which the raw material of sense is run. But this does not fit in with the facts which an analysis of experience reveals. In human experience, to which attention must necessarily be primarily confined, spatial order (as well as time order) appears only contemporaneously with the emergence of a concrete, at least partially systematized nature. Man does not first of all parcel out a qualitatively indifferent material world into objects, to which qualities are subsequently added. The spatial order develops at the same time as the concrete qualitative articulation. Consequently, although space and time may be ultimate conditions of the possibility of the experience of nature, they are known not merely as conditions, but as conditions of *experience*, and they are not conditions of experience in the sense that they

exist prior to experience. So far as space is concerned, it is the condition of one level of experience in the sense that if the spatial order on that level were to be removed, one large section of knowledge would at the same time disappear. This, however, does not warrant the presupposition that the knowing mind is furnished with an empty form which it causes to expand or contract at will, and by means of which it carves out objects with which intelligence may deal. Space (and time) are not "these fixed diagrammatic representations which, as an innate possession of our faculty of perception, or according to an original "law" of the same, impose themselves by force on our sensible idea of things like a ready-made net, but these species of order themselves first *originate* in the development of the whole synthetic process in which "nature" becomes for the "understanding" a structure. They do not, however, arise as a subsequent result of the order of nature, but as originally conditioning it in its regularity as they themselves come to birth."[1] The starting-point is the concrete experience, spatially, and in other ways, ordered. We cannot get behind this experience to see how it originated, but reflection upon its nature can show that without this spatial order our experience would not be what it is. It would be less ordered, and the conclusion is warranted that space is

[1] *In letztem Betracht sind also auch für Kant selbst Zeit und Raum nicht jene festen Schemata, welche, als ein eingeborener Besitz unseres Anschauungs-vermögens, oder doch nach einem ursprünglichen "Gesetze" desselben, unserer sinnlichen Vorstellung der Dinge gleichwie ein voraus feststehendes Gradnetz sich zwangweise auflegen . . . sondern diese Ordnungen selbst entstehen erst in der Entfaltung des ganzen synthetischen Prozesses, in dem die "Natur" sich dem "Verstande" auferbaut; jedoch nicht als ein nachträgliches Ergebnis der Naturordnung, sondern in ihrer Gesetzmassigkeit sie ursprünglich mitbedingend.* "Philosophie: Ihr Problem und ihre Probleme" (P. Natorp), pp. 59 and 60.

a necessary condition of human experience. We cannot, however, go further, and assert that space existed prior to experience, either in the human mind or as an independent objective medium. This would demand that we should take up a point of view outside or prior to experience, a demand which has only to be stated to be at once rejected as a call to do the impossible. As soon as space is emptied of its qualitative content, it becomes unreal, and the whole science of mathematics which is based upon this abstraction must be admitted to be hypothetical or ideal.

Bergson, however, *does* assume space as existing "over against the living self." The difficulties which he encountered in his attempt to show how this homogeneous medium originated as a form of intelligence have already been pointed out. He endeavoured to escape the dualism of Kant by maintaining that the spatiality of matter and the form of intelligence—*i.e.* the spatiality of mind—have been progressively adapted to one another. But this theory seems to raise more difficulties than it solves, and I cannot see that Bergson has got rid of this dualism. Even in *Matière et Mémoire*, when, setting out from a frankly dualistic position, he ends by making possible a union between mind and matter, this consummation is achieved only by an ambiguous treatment of matter. Matter is said to *repeat* its past, and so, Bergson says, the essential characteristic of spirit—*i.e.* the power of memory—is not entirely foreign to matter. But it must be emphatically asserted, in the interests of clear thinking, that repetition of the past is not to be identified, even practically, with the accumulation of the past on the present which goes on in the life of a mind. In fact, it is just the disparateness between the two which is emphasized in the *Essai*, when the *opposition* between

duration and space is strongly asserted; when it is maintained that in the material world, at any moment, nothing is left of the past—that "in pure space," "outside the *ego*," there is "mutual externality without succession." The whole difficulty arises from this assumption of space as a self-sufficient homogeneous medium, a form of sensibility—an assumption which plays a most important part in the argument that time and space, as ordinarily conceived, are not essentially distinguishable. Having assumed the existence of space as a homogeneous medium emptied of all quality, Bergson goes on to argue that there cannot be *two* forms of the homogeneous distinguishable from one another. If Bergson's assumption be correct, his argument is inexpugnable. If time as mathematics conceives it is a homogeneous medium from which all quality has been eliminated, then there would seem to be no ground for differentiating it from space, or, indeed, from anything else. But certain questions present themselves at this point. Do we not begin to suspect that neither the time *nor* the space of mathematics is real? Can there be *one* qualityless homogeneous medium, let alone *two*? Why treat space and time in different ways? In emptying each of all its "matter" have we not deprived both of all reality? As the distinction between "here" and "not-here" disappeared in pure space, so the distinction between "now" and "not-now" sinks out of sight in pure time. The empty "form" which is imagined to remain after all the "matter" has been taken away is neither time nor space; it is a nonentity. Bergson calls it space, and conceives it as a reality, and immediately his difficulties begin—difficulties which persist throughout his whole philosophy. The distinction which he draws between perceptual and conceptual space is real and important, but a similar

distinction between perceptual and conceptual time might have saved much trouble. Why erect conceptual space into an independent, self-sufficient reality? The impossibility of doing the same with time and yet of maintaining any difference between them should have caused Bergson to re-examine his notion of space.

So long as thought remains on the conceptual level, the characteristics of space and time, or, more precisely, of the space order and the time order, are distinguishable and irreducible. These characteristics have already been pointed out. When points are counted in time, the counting is ordinal: *a* is the *first* point, *b* the *second*, *c* the *third*, and so on; and when one point "is" all the others "are not"—some are not yet and some are no longer. When points are counted in space, on the other hand, the counting is numeral. It is *one*, *two*, *three*, and so on, and the point which is "here" is not "there," and the point which is "there" not "here," but both are present simultaneously. Thus the spatial multiplicity and the temporal multiplicity are distinct. Spatial multiplicity means points, one *beside* or *near* another; temporal multiplicity means points, one *before* or *after* another. Spatial multiplicity implies simultaneity; temporal multiplicity implies succession. "Points in time," says Natorp, "succeed one another. When a 'next' enters, the last must give way, while in space all points stand together, and not only do they not displace one another, but they support one another." He points out, further, that externality of point to point has a different signification in the case of time and space respectively. In time—not measured time, but time as it is most simply apprehended—the movement from one point to another is possible in only one direction; the temporal externality of one point to another is realized by a progress from one to another. One *was*, another

is; second excludes first. In spatial externality, on the other hand, the points are reciprocally external to one another. Not one of them is the first, not one of them successive. All *are*; two includes one. If the idea of a first, a second, etc., be introduced into the manifold of space, at once a time consideration comes in, and conversely, if a reciprocal externality is represented in the time series, then the series at once loses its temporal significance, and becomes spatial. All attempts at the measurement of time issue in this latter result. (Bergson has rightly emphasized this.)

Now, if it be admitted that the temporal conception of reality can be differentiated from the spatial conception, acceptance of the proof which Bergson has offered in support of his argument that all attempts to measure time involve its spatialization would not demand the admission that the human intelligence is incapable of conceiving time as distinct from space. The proof must be kept within its limits. Its significance for philosophy is its indication of the abstract nature of the results of positive science.

Bergson, however, proceeds upon the assumption that his proof includes a demonstration of the inability of the human mind to conceive a temporal order as distinct from a spatial. The simple fact that, so far as the points counted are concerned, the possibility of numeral counting does not include that of ordinal counting, should make one pause at this juncture.

But, in addition, it may be seen how Bergson has been led to disregard the real limits of his proof. It was said above that so long as we keep to the conceptual level the characteristics of the spatial and the time order respectively are distinguishable and irreducible. Those characteristics have been pointed out. Now Bergson, when dealing with space, proceeds to

empty it by abstraction of all its content, and attempts to represent the empty form which remains—attempts, one might say, to image a concept. But since that which gave it colour and distinctness has been eliminated, the form which is imagined to survive will be identical in every case in which this operation has been performed. It will be pure homogeneity. But for us the identity will be one of nonentity. Instead, however, of recognizing this, Bergson gives to this empty form, this pure homogeneity, the name of space, and in his subsequent arguments it is, consciously or unconsciously, endowed with the properties of space. The result is that whatever be the starting-place in intellectual experience, the point reached by regression is invariably the same. Empty sufficiently the content of any concrete fact of intellectual experience, and you arrive, not at the annihilation of knowledge, but at a conceptual form which is fundamentally spatial. Time, causality, teleology, are all, as intellectual concepts, impure; space is the basis of them all. So too are all the subordinate concepts which are beaten out in daily experience. Does not this wholesale spatialization of knowledge arise, not from an ineradicable propensity of intellect, but from Bergson's initial error of giving the name of space to that colourless, qualityless something which is imagined to remain, when, in reality, knowledge has moved towards self-destruction by eviscerating concrete experience of all its qualitative content? Has it not its foundation in the fact that he has, from the outset, confused spatiality with "pure," *i.e.* qualityless, homogeneity? And cannot one see how once this mistake has been made, space and time, matter and spirit, come to be contrasted as the purely homogeneous with the entirely heterogeneous?

In a very real sense space and time have reality

only in virtue of the matter which, we say, in popular language, "fills" them, and, when we abstract from this "matter," the hypothetical or ideal reality which remains is, in neither instance, a homogeneous medium utterly devoid of quality. In the one case we have an ideal space, with the qualities of space, homogeneous in all its parts, it is true. But it is extensive, and therefore qualitative, homogeneity. In the other case there is an ideal time, possessing the properties of time, which are distinguished from those of space—again homogeneous throughout, but the homogeneity is that of succession or flow. The measurement of time may demand its translation into space, but this does not imply the identity of time and space. Space is one point of view from which the human mind interprets or orders experience; time is another. The order which emerges is distinct in each case, and the one order cannot be resolved into the other.

Bergson's argument seems to break down here. It might be urged that when he speaks of space as utterly devoid of quality he means that space is an *extensive* homogeneous medium. But if this is his real meaning the argument loses its point, for it hinges on the impossibility of there being more than *one* homogeneous medium.

At the very beginning of his philosophy, then, Bergson has omitted from consideration the distinctive features of time and space (following here, no doubt, the procedure suggested by mechanics and a mathematical philosophy) and has called the neutral form which remains space—the pure space of geometry, absolute and immobile. Over against this he has placed a reality which has nothing of this immobility. This reality he denominates time or duration. Hence the dualism which runs through his thought. He has first

isolated from concrete reality the aspect of permanence or homogeneity, and has erected that into a self-sufficient existent reality. The next step was to treat in the same way the appearance which reality presents when its spatial characteristic disappears, and to call this fluid mass, from which all permanence and homogeneity is abstracted, time.

But before proceeding to examine the intuition of duration, we may note another feature which is prominent at the beginning of Bergson's thought, and which occurs again and again throughout his later work. It is the tendency to make no essential distinction between succession and the conditions of consciousness of succession, between time and the conditions of consciousness of time. For example, he says: "Succession exists only for a conscious spectator who keeps the past in mind." Again: "Each of the so-called successive states of the external world exists alone; their multiplicity is real only for a consciousness...." And once more: "In space we find simultaneities which, without succeeding, are distinguished from one another in the sense that one has ceased to exist when the other appears." In all these cases, Bergson has in view a distinction between what we might call dynamic succession and mere successive repetition. The distinction is a real and important one, but it is not, as Bergson seems to suppose, a distinction between succession and something from which that feature is excluded —between a reality which exists in time and one which does not exist in time. It is a distinction *within* succession, *within* time. Both exist in time, although one persists the same throughout, and a hypothetical mind which should be confined to experience of such reality might never rise to the conception of change or of time; while the other changes in time, and the mind,

in experiencing this change, whether within itself or externally to it, would develop for the first time the conception of time. The thought suggested by the passages quoted is that, because for a static material world existence does not involve change, therefore the material world does not actually exist in time—it exists in an eternal now. If, however, we grant the existence of such a world, all that we are warranted in saying is that if we could conceive a consciousness similar in its existence to this static material world, the knowledge of succession would never arise in it. Such a consciousness would be condemned to an ever-renewed present. But though memory is a necessary condition of a *knowledge* of succession, it does not follow at all that memory is a necessary condition of the *existence* of succession. If we are ever to grasp the course of time, no matter whether we attach to time the meaning which Bergson gives to it or not, it will be admitted by all that the mind must have the power of keeping hold of the past and presenting it along with the present in one moment of consciousness, *i.e.* of grasping the fact of change. This is the condition of our knowledge of time; it is not by any means necessary to the existence of time. Take the example given by Bergson, that of the position of the hand and the pendulum of a clock. At any one moment there is only a single position of the pendulum simultaneous with a single position of the hand. Suppose we hold before the mind two different simultaneities, two relatively different positions of the hand and the pendulum, must we say that the succession between these two relatively different simultaneities "*exists* only for a conscious spectator"? It is perceived, certainly, only by a conscious spectator; how it would appear if it could see itself, or how it would appear if presented to a mind deprived of

memory, and so without a consciousness of time, we cannot say, for in either case we should have to step outside knowledge. We cannot help perceiving it under the condition of time. Not only so, but the two sets of simultaneities have more meaning when we are able to affirm that they are "first" and second," that they succeed each other (*i.e.* when they are viewed under the form of time), than they would have were our knowledge confined to the apprehension of them as only spatially related. For us they appear as successive even though we know quite well that only one of them is actual at any one moment. That this is so is indicated by Bergson's inability to express himself save in terms of time. "There is outside us," he says, "mutual externality, since the *present* oscillation is radically distinct from the *previous* oscillation." Again: "In space there are simultaneities which, without succeeding, are distinguished from one another in the sense that one has ceased to exist when the other appears." This is not a mere matter of words. There is a real distinction, unerringly apprehended by the mind, between the simultaneous positions of the objects in space which present themselves at any one moment, and two sets of these simultaneities, one of which is known to be actually present, while the other is known to exist no longer. Further, even if an object exists in the sense of persisting, the statement that it persists implies more knowledge than the bare assertion that it exists, if we could go no further than that would imply. But we cannot stop there. For us, in relation to our mind—and in thought the relation of the mind to the facts is the important thing—the snapshots of the external world present themselves as successive, and we have no ground for saying that succession exists only for a conscious spectator, if thereby we mean to imply (as

Bergson seems to do) that we can assert anything about reality *except* as it exists for such a spectator. The view which implies that reality exists *for itself* in another way from that in which it exists *for us* is essentially identical with Kant's position that things exist *for themselves* in a way different from our perception of them. In either case, the assertion could be justified only if we were able to step outside of knowledge, and become the object itself. Real change may be the condition of the development of our consciousness of time, but we have no right to affirm that, therefore, real change is identical with time.

An intuition of time, then, is not necessary, if the inability of intelligence to arrive at a conception of time which can be differentiated from space be urged as the basis of that necessity. We must now ask—"Does the intuition of time add anything to the stock of human knowledge?"

To begin with, it should be noted that Bergson asserts that the knowledge or intuition of pure duration is not to be gained simply by thinking away the differences which present themselves amongst our states of mind, thus reducing them to a colourless mass. The intuition may involve the negation of conceptual knowledge, but it is only as a positive act is substituted that the intuition takes place and Spinozism is shunned. Further, a special power of deep introspection is necessary if we are to take advantage of the rare moments of possible insight.

It is in the free act that duration is felt in its purity, and it manifests itself there as just the extreme opposite of space. Space is pure homogeneity; duration is pure heterogeneity. Space is qualityless; duration is entirely qualitative. Space is immobility; duration is becoming. In space there is mutual ex-

ternality without succession; in pure duration there is succession without mutual externality. "It is the form which the succession of our conscious states assumes when our *ego* lets itself *live*, when it refrains from separating its present state from its former state." Bergson justly lays emphasis upon an aspect of the conscious life which has been, in the past, too much neglected—the aspect of its activity. States of consciousness, as living states, are not inert; they form an organic, growing whole. This fact finds very clear expression in M. A. Fouillée's work, *La Psychologie des Idées-Forces*, in which he develops the thesis that every fact of consciousness is *idea*, in so far as involving some kind of *discernment*, and is a *force* in so far as involving some kind of *preference*. The peculiarity of Bergson's position is that he identifies this mass of idea-forces with time. Time is identified with the life of a freely active being, and the real nature of pure duration is *felt* only in the moment of free activity when all our past converges towards a present act. Bergson's theory is not that the consciousness of an accumulated experience is the germ out of which the concept of time is developed. The life of the self *is* duration, and any attempt to conceptualize it issues in its mutilation. The distinction is fundamental for him between *the duration in which we see ourselves acting* and *the duration in which we act*. The duration in which we act is lived time; the duration in which we see ourselves acting is conceptual, *i.e.* spatialized time.

This identification is not, within knowledge, a progressive, but a retrograde step, by which knowledge of time vanishes within a sort of quicksand of feeling. When one attempts to gain any clear idea of what duration is for thought, one is directed to the region

of metaphor and negation. "Duration is a qualitative multiplicity with *no* likeness to number; an organic evolution which is yet *not* an increasing quantity; a pure heterogeneity in which there are *no* distinct qualities. In a word, the moments of inner duration are *not* external to one another." It is a "confused" multiplicity; it is "inexpressible"; "language cannot get hold of it"; "the deep-seated conscious states have no relation to quantity"; "we cannot tell whether they are one or several"; there is "nothing homogeneous" in it; it is a multiplicity "without relation to number or space." This array of negative statements produces the feeling of entering a dark cavern, in which the lights of knowledge are one by one extinguished. If we turn now to the metaphors, not much more light is afforded, for these are all gathered from an experience into which space has already intruded. Duration is compared to a melody in which the notes melt into one another, but here of course the notes need to be apprehended separately as well as in synthesis. It is compared to a living being whose parts, although distinct, permeate one another because they are so closely connected. The states of the inner self melt into one another like the crystals of a snowflake at the touch of a finger. It is a wholly dynamic process, not unlike the purely qualitative way in which an anvil, if it could feel, would realize a series of blows from a hammer. All these metaphors confirm the impression made by the negative description of duration—the impression that this duration is something which lies beyond the limits of knowledge as we ordinarily understand it, that it is something *lived* and felt rather than *thought*.

When we come to the positive statements concerning it, this impression becomes conviction. Pure duration

is the form which the succession of our conscious states assume when our *ego* lets itself *live*. It is an interconnection and organization of elements such as would be felt by *a being who was ever the same and ever changing, and who had no idea of space*. It is pure quality, pure heterogeneity, becoming, mutual interpenetration. It is the imperceptible organizing of states of consciousness into a whole. Now, pure quality, pure heterogeneity, pure becoming, are completely outside the limits of ordinary thought. And Bergson does not hold that they are to be grasped by thought: they are lived and felt. You cannot predicate anything of them without mutilating them. This felt activity, this felt fluent mass of pure heterogeneity, is the ultimate subject of all predication, but no predication can be made of it without introducing difference into it and thereby distorting it.

Now let us suppose, for the moment, that we can leave ordinary knowledge behind us, and, entering into ourselves, live this life of pure activity, and feel ourselves living it. Why should we call this felt activity time? Surely the essence of the knowledge of time is the distinction between past, present, and future, and it is perfectly clear that these distinctions cannot exist except for a kind of thought which involves difference. There is no reason why this fluent mass should be called time rather than anything else. In fact, there is every reason why, on Bergson's view, no predication at all can be made of it. For a self which has the power of reflection, the accumulation of experience, the consciousness, so to speak, of the ever-increasing burden which we carry with us, may be seen, some would hold, to be the germ out of which the conception of time develops. But this mass itself is an ideal objective existence, which we may call time if we please, but

which we may, with equal fitness, designate in many other ways besides. In any case, we express its nature only partially, and as soon as we attach a predicate to it we represent it to ourselves as object, and so are immediately transported into the realm of discursive thought. But no appeal to this ideal stage of knowledge, in which differentiation between the knower and the known is conceived as transcended or as not having taken place, can give us any help at all in forming our conception of time.

In this endeavour to grasp immediately, without the apparatus of judgment, conception, and reasoning, what has happened? Cognition has been progressively minimized, and the substitution of an undifferentiated flux has been made. In a state of feeling, cognition is at a minimum, and if a state of pure feeling were attainable, cognition would vanish. In fact, the approach to an intuition of duration would involve a descent towards the mental life of the amoeba. To reply that this is not so, since consciousness is much feebler in the case of such a being than with man, is beside the point, for clearness of consciousness means clearness of conceptual articulation, primacy of cognition, and, as articulation becomes blurred in proportion as cognition surrenders its supremacy to life or unreflective activity, consciousness, *pari passu*, is enfeebled. You cannot retain the degree, or strength, or vividness of human consciousness while letting go the clearness of human knowledge. You cannot switch on its clear light to the unreflective psychical content of the animal, nor yet to the imagined unreflective progress of the deepest psychical human life, from which conceptual difference has been eliminated. The feeling of pure duration is, in fact, with a different name, Bradley's undifferentiated feeling, and with Professor G. Dawes

Hicks (who is writing here in connection with Bradley's view of feeling) one may say that "an original sensuous ἄπειρον, psychical in character, which in some mysterious way is felt, and out of which, through articulation, knowledge of intelligible fact emerges, is a notion which I have vainly struggled to grasp: it strikes me rather as a conundrum than as the solution of a problem." Bergson points us for a feeling of pure duration to the land of dreams, in which we have a "confused instinct" of it, and he directs us to the animal consciousness. But it is obvious that in each of these instances we are regressing from our standpoint of intellectual knowledge. A state of confused feeling may be conceived as the ideal limit of such a regression, and we may picture in imagination the life of an animal very low down in the scale as a *continuum* of confused feeling in which the differentiation, if any there be, between subject and object and between moment and moment is very vague. In such a regression all distinctions, that of time included, sink out of view. The end, in which all differentiation would be lost, is never attained by us, at any rate. For us there is always feeling, presentation or object, and volition, however indistinctly they may be present to consciousness. The three are inextricably intertwined, and the disappearance of any one involves the disappearance of all. There is no escape from the difficulties connected with the idea of time by way of this cavern of confused feeling of multiplicity and heterogeneity. We rather feel that we are losing our bearings altogether, that our minds are going from us, and that time and space, we and all things, are engulfed in the darkness of impenetrable night.

Examination of one of the features of psychical duration upon which great emphasis is laid—that of

interpenetration of parts—will show that the idea of pure duration is not to be grasped by letting go all conceptual differentiation. The personal consciousness is the highest type of organism, and, as such, exhibits the most perfect interpenetration of parts. In an organism the parts are not each perfect and self-complete; they are parts only so long as they live in the whole. It is only when the nature of the whole is grasped that the full meaning of the parts is clear, and the nature of the whole cannot be apprehended by a separate study of the parts, for the parts of an active whole are essentially different from the parts of a mechanism such as a watch. The organism is more than an aggregate of parts. If the nature of any organism is to be understood, we must pass beyond that stage of thought in which the mechanical categories alone are necessary. Both Bergson and Kant have emphasized this fact, and placed it almost beyond dispute. But the passage to this higher level does not *exclude* the mechanical interpretation: it gives it new meaning. Our knowledge of a living organism is not less, but more, when we are able to differentiate its parts and to state their chemical constitution. It is not by letting go this knowledge and stepping into another department of knowledge which excludes concepts that we shall perfect our knowledge of the organism, but by regarding this mechanical interpretation under a higher idea, that of purpose or end. We know an organism truly only as we know the parts which we have isolated not merely as parts, but as parts functioning in the activity of the individual as a whole. Similarly, Bergson is indubitably right when he argues that the psychologist can, at the best, present a mechanical reconstruction of the self, the most perfect type of organism, by aggregating the parts which he has isolated.

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He is likewise right when he emphasizes the fact that the most ingenious combination of concepts of unity, multiplicity, etc., can never lead to a grasp of the nature of the self. They are but aspects, and their combination may issue in the image of a motionless ghost, never in a living, active, colourful self. The aspects which the psychologist isolates are truly known when they are known as elements of a functioning self, or, if Bergson's expression be used, when they interpenetrate. But surely it will not be denied that the knowledge involved in the statement that in the self there are elements which interpenetrate is greater than if one refused to introduce difference at all into the concrete living physical content. Yet you cannot speak of *interpenetrating* parts without first thinking of *parts*. It would certainly be a mistake to remain at the level of considering merely parts or aspects; the parts are understood only when they are regarded as parts of a purposeful organism, *i.e.* in the case of the psychical organism, only when they are seen to be factors of a judgment of some kind, which in its turn is an activity of conscious mind in pursuit of an end which is, ultimately, its own self-realization. The same truth may be put in another way by saying that psychology must be supplemented by a theory of knowledge in which all the judgments or functions of unity are shown to have their source in a self-conscious soul or subject. But the first stage, the psychological, is an important one, and when the ascent is made to the second stage, knowledge of the self is capable of greater perfection according as the analysis on the lower level has been more perfect.

If, then, Bergson is to speak of interpenetration of parts in any but an entirely metaphorical sense, he ought to recognize that the introduction of difference or articulation is not a negation of knowledge, but the

realization of it, the differences being grasped in an increasingly higher unity; that the ideal of knowledge is not abolition, but exhaustiveness of predication; that it is by the multiplication of predicates that knowledge becomes "stuffed and full." If he uses the term interpenetration of parts in an entirely metaphorical sense, and if all the predicates which are attached to pure duration are to be understood in a similar way, then he condemns us to an utterly predicateless knowledge, which is a contradiction in terms. The type of knowledge is the judgment—unity in difference; the type of reality is the individual—again unity in difference; and the supreme type of both knowledge and reality is furnished immediately to us in self-consciousness—here again is unity in difference. Not dead identity, not pure heterogeneity, but the simultaneous development of unity and difference—that is the ideal of the knowing subject, the ideal of knowledge and of life. What kind of knowledge a consciousness capable of comprehending immediately and exhaustively the nature of reality would have, we have no means of knowing, but we may safely say that such an immediate grasp would involve, not the annihilation of our incomplete knowledge, but its perfecting.

Apart from any general argument, however, it may be shown from Bergson's own works that this idea of pure duration is "a limitative conception, essentially unrealizable within experience." In *Matière et Mémoire* the central principle of the whole thesis is that "consciousness is the characteristic note of the *present*, that is to say, of the actually lived, in short, of the *active*, and that which does not act may cease to belong to consciousness without thereby ceasing to exist in some manner." Again, in *L'Evolution Créatrice* we are told that consciousness is the light immanent in the zone of

virtual or possible action. What bearing has this view of consciousness upon the problem with which we are dealing?

Put simply, Bergson's thought here comes to this—that we are conscious only so long as we are being summoned to action, and that, when the representation is adequate to the action, or when there is no solicitation to action, consciousness disappears. In other words, there is consciousness only when there is choice, and when there is choice we are already at the intelligence stage. In the case of pure duration there can be no question of choice, since choice arises only in the event of an interruption, of a pause for guidance. We are not, then, conscious of our inner duration as such, but only as interrupted, *i.e.* we are conscious only of the life which unfolds in space, the life lived in contact with the external world, which includes other organisms akin to our own body. We are conscious of the contents of the self only when they have become to some extent externalized, socialized, differentiated, intelligized. The "pure" memory is a "vague nebulosity," but it is already on the way to become part of a concrete perception, and it is only because it *is* on that way that it has become even so much as a "vague nebulosity." Until it became incipiently externalized, it remained in the shadow of the unconscious. If, then, there is such a thing as pure duration, it never, on Bergson's own showing, comes within the sphere of consciousness. It is incompetent to reply that once having become conscious, man may cease to exercise his intelligence, and yet continue to utilize the light of consciousness in an intuition, for this argument implies that an attribute can exist apart from that of which it is an attribute. Consciousness is an attribute of intelligent subjects or

individuals, and with the disappearance of these individuals consciousness, too, vanishes.

The conclusion appears to be inevitable that the notion of pure duration is a *passage à la limite*, never realized within experience. The attempt to realize it seems to demand that we should step outside of consciousness. It is significant in this connection that Bergson speaks, in *L'Evolution Créatrice*, of the supreme effort of intuition as supra-conscious, and again, the metaphysician is urged, if he is to place himself at such an exalted point as to be able to observe the genesis of intelligence, to take the risk, and *action* will break the circle in which knowledge encloses us. But it can scarcely be maintained that if knowledge were to be swallowed up in supra-conscious action, any gain would accrue to knowledge—rather the reverse!

Consideration of the intuition of matter, a timeless reality at the opposite extreme from pure duration, leads to a similar conclusion. In the *Essai*, Bergson assumes throughout that outside us there is space, in which there is externality *without succession*. "Inert matter," he tells us, "does not seem to endure, or to preserve any trace of past time." Again: "To put duration in space is really to contradict oneself, and place succession within simultaneity." In *L'Introduction à la Métaphysique* we are conceived to "transcend ourselves" in an effort of intuition in which we "proceed to an infinitely diluted duration.... At the limit would be the pure homogeneous, nothing but repetition, by which we shall define materiality." In *Matière et Mémoire*, matter is defined as "a present which is always beginning again"; it "repeats the past unceasingly." In *L'Evolution Créatrice*, an attempt is made to show how spirit descends towards this timeless existence. It is true that Bergson admits that we

never fall into the absolute passivity involved in the extremity of this movement, but even the relative passivity, the achievement of which he regards as a necessary condition of an intuition of matter, has carried us far towards the complete annihilation of knowledge. If this intuition were attainable, it would be an intuition which nobody had, since the supposed intuiting self would have disappeared, diffused into the being of the matter which it is conceived of as knowing.

An analysis of sense-perception reveals as one element a direct grasp of reality. This is to be considered, however, not as an isolated stage in the development of sense-perception, but rather as a factor in a concrete perception which always contains in addition representative or ideal elements. This concrete fact must be our starting-point. The fact of knowledge has come about, but, until it has become a fact, we do not know. We cannot set out from a pure, impersonal, unconscious perception and watch the genesis of the concrete fact of conscious perception, for such an attempt implies the assumption that knowledge exists before it exists! The so-called pure perception of matter is arrived at by the gradual elimination of the ideal elements, but this involves the progressive eradication of judgment, which, in turn, implies the annihilation of knowledge. Such a pure perception would be approached in the case of the most inferior living being, in the life of which knowledge is at a minimum. But even in such an extreme case the limit is never reached. The external world of the lowest living being is the external world *as it is for it*; it is the world as it presents itself to an individual mind, however undefined the individual and however vague the presentation. If it were necessary to admit that there is a stage in the scale of sentient life at which a "pure" perception

takes place, it might still be maintained that the point reached was not that of knowledge, but of action. But such an admission is not necessary, as indeed Bergson himself indicates, for in the humblest sentient being there is discernment, however vague, choice, however incipient. It is *its* consciousness as a purposive unit which "discerns" the external object. Bergson may, and does, maintain that by an effort of intuition we can descend below the level of individuality, and "touch," "penetrate," "live," the reality of matter. But if such a feat were possible, the point of view of knowledge would at the same time be lost, for we should descend below the level of the humblest sentient being. We cannot retain the light of consciousness and at the same time live the existence of matter.

Here again, then, the conclusion forces itself upon us that the pure intuition of matter is a limitative conception. To say that matter *as we know it* persists, essentially the same, in time, is perfectly intelligible. It is impossible, however, for us to conceive timeless reality, for we who know exist in time. What the existence of matter may be *for itself* is a speculation which has no meaning for us. We should cease to be, in the effort necessary to know matter in that way.

The intuition of time makes no real addition to knowledge, nor does the intuition of matter. Indeed, both involve the abdication of the point of view of knowledge. Even if it were necessary to admit that an intuition of pure time is possible, likewise an intuition of matter, and that they are what Bergson attempts to state them to be, the difficulties connected with his theory of time would not be at an end, for there seems to be no path by which one might travel from this morass of heterogeneity to the barren desert of quality-less homogeneity into which Bergson has resolved space

—from a timeless reality to a reality which is all time, or *vice versâ*. Bergson says more than once that pure duration has no relation to quantity, number, or space. How then is the passage from the one to the other to take place? Bergson holds that there is a symbolical representation of duration, which consists in the mixture of the idea of a homogeneous medium borrowed from space and the idea of succession borrowed from pure duration. "There is," he says, "a real space, without duration . . . and a real duration, the heterogeneous moments of which penetrate one another. . . . *The comparison of these two realities* gives rise to a symbolical representation of duration derived from space." But, in the first place, it must be asked: does this intermixture take place within the life-history of the individual? If so, then it is necessary to presuppose that each individual mind has an intuition of the two extremes and allows them afterwards to become intermingled—a supposition which, from the nature of the intuition, is impossible. If the osmosis takes place in the race the difficulty is only pushed back a step. In the second place, it must be affirmed that comparison is possible only when there is a common quality, and pure space and pure time are entirely disparate.

Bergson, however, brings in a connecting link, simultaneity, which, he says, is the intersection of the two. Now, it is sufficiently obvious that the consciousness of the simultaneity of two objects or events implies already the idea of time in some form. There is an irreducible difference between "here" and "now," and simultaneity implies not only relative position in space—a time-element enters in also. The points under consideration occupy that relative position *now*. There is an essential difference between the consciousness of the side-by-side-ness of two points and the side-by-side-ness of two points *plus* the

consciousness that they are side by side *now*. Further, consciousness of the present involves also consciousness of past and future; "now" has meaning only as related to "not-now." This consciousness of simultaneity is, then, the fact to be explained, for it already involves consciousness of time. Appeal to a vague metaphor will not help us here. To say that an exchange takes place, very similar to what physicists call the phenomenon of end-osmosis, explains nothing. When Bergson gives an example to illustrate how the exchange is effected, he seems to be landed in hopeless confusion. The example is well known. I follow with my eyes on the dial of a clock the movement of the hand which corresponds to the oscillations of the pendulum. Outside me in space there is never more than a single position of the hand and the pendulum; within me there is the process of pure duration. Now, when Bergson goes on to describe the exchange between these two through which the idea of homogeneous time is generated, he presupposes throughout the time which he is seeking to explain. He speaks, for example, of an oscillation of the pendulum which *occurs at the same time* as a phase of the inner life.

The fact is that Bergson appears, in his explanation of conceptual time, to be carried away by the force of his metaphor, and he has failed to realize the difference between knowledge and action. He speaks as if the contents of mind could intermingle like physical substances, and gives a minimum of attention to the fact that within the sphere of thought action takes place only along the lines of judgment. The content of mind —or, if that expression be objected to, the ultimate subject of all predication—is one. The progress of knowledge is the development of articulation within it, and that progress is accomplished in a definite manner,

viz. by a series of judgments. Bergson has not revealed the acts of judgment by which duration and space are combined so as to form time. Nor can he do so, since he has initially fixed a great gulf between time and space in such a way that if any judgments are possible in regard to time, they are utterly foreign to space, and *vice versâ*. If these realities are so entirely distinct as Bergson makes them, then it is only by a *tour de force* that they can be amalgamated.

This *impasse* suggests that something has escaped Bergson in his analysis. The fact which he has overlooked is the actual differentia of time from space. Pure time and pure space, as already pointed out, are alike ideals without any independent reality. If they are to have any reality they must be considered in connection with their "contents." Now, when I represent a number of events which I have experienced, these events are arranged side by side in one moment of time, which is, of course, a more or less abstract representation. It is an abstract representation of each event itself, and much, if not all, of what actually occurred in the intervals is left out. It may possibly happen that I range the events, or the mere outline of the events, along an abstract line. If anyone could look into my mind he might say that these events were only spatially related, but *for me*, as my mind sees them, they are related as successive. They co-exist in one state of consciousness, it is true. That is a necessary condition of the knowledge of any relation between them. But I conceive them in that moment under the relation of time, *i.e.* I conceive them in such a way that I think of the first as having disappeared when the second comes into existence, and so on. I think them as successive. Whatever else has been abstracted, that element of succession remains, and we know exactly

what it means. If we begin by assuming a perfectly qualityless medium in which events or objects are set side by side, then it may be difficult for one who stands off from them, so to speak, to confer on these events that which will make them appear to be successive. But we do not begin with such a medium. We set out from concrete experience, and by a process of abstraction we represent isolated events as successive. We stop there; there is no qualityless homogeneous medium either thought of or implied. As M. Fouillée says: "It is by pure abstraction and fiction that we represent time as a 'medium' in which events are displayed. Time does not enclose things like a frame; it is simply the indefinite succession of real or possible successions. The relative homogeneity which we introduce into it arises from the fact that we abstract everything save the fact of succession itself, and consequently the transition between past, present, and future." Bergson has omitted this element at the beginning of his analysis of time. (One cannot deny that mathematicians have done the same.) He has identified time with space, and then when he wishes to restore that which he has omitted, the way is closed.

The peculiarity of time is that past, present, and future are "held in solution." Therein consists its reality. We are able to grasp *events* external to us, and the perception of an event is the perception of past, present, and future in the one act of synthesis. We grasp the *event as a whole*, and under the guidance of the idea of time the mind can by analysis discern past, present, and future elements in it. These fall apart, so to speak, on reflection, but they were immanent in it from the beginning. We do not perceive first one immobile object, then another immobile object, and afterwards set them side by side in a medium either of

time or of space. We directly apprehend the *event*, the activity, and by abstraction or analysis or articulation we come to see that it has the elements of past and present within it, as well as an indication of something which is not yet. The past, the present, and the future *co-exist* in consciousness. That has to be admitted, but the essential point is that they are known *as* past, present, and future, and not merely as juxtaposed——that is, they are known under their time aspect, and not under their space aspect only. In the one moment of consciousness we have "the present memory of the past" and "the present prevision of the future," but within that moment of consciousness past, present, and future are conceived, not as co-existing, but as successive. In any investigation into the nature of time that must be our starting-point. If we are confined to begin with to the perception of just one object at a time, and if no differentiation were possible within that object, it is impossible to see how the conception of time or succession, either "within us" or "without us," could ever arise. If we are to have any conception of time order we must be capable of holding more than one element in consciousness. These elements must co-exist in consciousness. But co-existence in consciousness, though a condition of experience of temporal order, does not necessarily imply consciousness of that order. Bergson has brought this clearly before our minds. If they are to be temporally regarded, the elements that co-exist in the one moment of consciousness must be perceived as distinguishable and irreversible phases of a continuous change. In other words, we must perceive change directly, primarily. This is just what happens. We do primarily perceive change (whether internal or external change does not now call to be considered), and in the change perceived the time order is immanent.

Psychology may show how this time order comes to be clearly discerned by us. There is no need to suppose that we set out with an intuition of an empty form, a "pure" form, as Kant would say, which exists independently of all sensible experience. The capacity of perceiving change, which must be admitted, implies an incipient knowledge of time, akin to the vague knowledge of space which has been called "extensity." Psychologists may show how this vague knowledge grows in clearness through the appetitive or motor activity of the subject, but they must set out from this primitive awareness of time. Looked at in this way, time becomes a point of view, different from space, from which, from the very beginning, we seek to interpret reality, and reality turns out to be such that an interpretation can take place—an order of succession reveals itself in the universe of our experience, as well as an order of co-existence. Under the form of time we are able to interpret the world of our experiences as more and more an orderly system of continuous change. From this point of view, time is seen to be a universal condition of all our knowledge, present from the beginning, and seen to be necessary as soon as it is revealed to the reflective consciousness. It is only by transcending *human* experience that a timeless knowledge can be imagined as even possible.

There is no apparent gain to knowledge in the identification of time with the creative progress of reality. At the best, it leaves the mind in a state of interrogation as to the nature of that progress, and this interrogation can be answered only by the articulation which the intellect can present by means of a series of judgments. The choice lies between that systematic, though admittedly incomplete, body of knowledge which embraces the truth of physical

science, psychology, ethics, philosophy, and religion, so far as the human mind has been able to grasp reality in its varying degrees and aspects, and a metaphysic which is condemned to symbolical expression.

The explanation of Bergson's procedure seems to be that indicated in the previous chapter. He has started from the living self, which exhibits two aspects. It is active, it grows, it lives by a continual process of creation or self-regeneration. In the words of Professor Muirhead: "In saying subject we say self, in saying self we say free creator." That is one essential characteristic of the self, which, since Kant's time, has been overlooked or at least minimized in some quarters. But there is another, equally essential. It remains fundamentally identical. It is *the one self* which persists throughout all its changes. The self-conscious life embodies these two forms of existence. Bergson has isolated these opposite but inseparable aspects of the living self, pushed them to their extreme limit, and imagined that they can have an independent existence. Thus he has arrived at the thought of a permanent, unchanging homogeneous *plenum*, from which all activity and creation are banished, on the one hand, and on the other at pure duration, pure heterogeneity, pure creative activity, from which all identity has disappeared. At both extremities the concrete, living, active self has vanished—knowledge is swallowed up in a form of being which is an object without a subject or a subject without an object. At the one extremity it is refracted into the multitudinous points of a homogeneous space which is eternally and changelessly self-identical; at the other it sinks back into the undifferentiated liquid lapse which is pure duration.

This conclusion is confirmed when we consider Bergson's treatment of the problem of freedom. There is much in this treatment which will meet with hearty acceptance in most quarters worth considering. For example, his determined resistance of all attempts to mechanize freedom is in line with the best traditions of idealism. His consideration of the controversy between the determinists and free-will advocates is a most admirable piece of brilliant analysis. But his final word on freedom is unsatisfactory. It is a true but not a new doctrine that a free act is one of which "the self alone is the author," one "which expresses the whole of the self," that "it is the whole soul which gives rise to the free decision," that "the act will be so much the freer the more the dynamic series with which it is connected tends to be the fundamental self," and that "we are free when our acts spring from our whole personality, when they express it, when they have that indefinable resemblance to it which one sometimes finds between the artist and his work." The whole question of the *philosophy* of freedom, however, lies in the conception of the nature of this soul, this fundamental self. There can be no doubt as to what this self is for Bergson. It is the heterogeneous multiplicity of states of consciousness which permeate one another. The free decision is the progress of this inner duration. Some of his most characteristic expressions in this regard may appropriately be recalled. "The deep-seated self which ponders and decides, which grows hot and blazes up, is a self whose states and changes permeate one another." It is a "self in which succeeding each other means melting into one another to form an organic whole." It is "an organized and living intelligence." "In the depths of the self, below this

most reasonable pondering over most reasonable pieces of advice, something else was going on—a gradual heating and a sudden boiling over of feelings and ideas, not unperceived but rather unnoticed." To act freely is to live the life of this inner self, to "get back into pure duration." Such moments of free activity are rare, exceptional, and, indeed, we can never render ourselves absolutely free. There is no intelligible sense in which we can say that causality applies to our free activity, for "the law of causality binds the same effects to the same causes," and so finds no point of application in pure duration, for every successive phase of the progress here is hetero geneous, new, and original. "A cause cannot repeat its effect here, since it will never repeat itself." "The relation of the free action to the state from which it issues cannot be expressed by a law, since this psychic state is unique of its kind, and unable ever to occur again." For a similar reason, a free act is wholly imprevisible. Finally, free activity does not spring from motives. "It is at the great and solemn crisis, decisive of our reputation with others, and yet more with ourselves, that we choose in defiance of what is conventionally called a motive, and this absence of any tangible reason is the more striking the deeper our freedom goes." Occasionally, in fact, in all cases of really free action—"we decide without any reason, and perhaps, even, against every reason. But in certain cases that is the best of reasons." The conclusion is that we can live freedom, but immediately we begin to say anything about it we spatialize it, and raise insoluble puzzles. This looks like thorough-going scepticism, the despair of reason with itself.

This pure activity has already been argued to be essentially unrealizable in experience. That argument

need not be recapitulated. But if free activity is to be identified with the progress of pure duration, and thus placed beyond determination by thought, no reason can be alleged why this activity should be termed free or spontaneous, any more than why it should be termed time. One may be in thorough agreement with Bergson in the view that freedom consists in *activity*, and in an activity which passes beyond the limits of logical reasoning—in other words, that feeling and will have characteristics of their own which forbid their resolution into cognition. But the opposite tendency to resolve the self-conscious subject into feeling-accompanied activity must be strenuously resisted. It is that tendency which we find in Schopenhauer to regard the "known self as nothing" and the willing self *only* as real. That way lies scepticism.

In Bergson's account of freedom one essential factor is omitted. He speaks continually of the self, and of the personal tinge which all free actions have, but the *essence* of the human self has escaped his notice. His account of freedom has been criticized as logically implying the position that an animal is more truly free than rational and reasoning man, and there is some point in the criticism. Many of the expressions which he employs, "heating," for example, and "blazing up," "boiling over of feelings," especially since these are contrasted with "pondering," "deciding," and "reasoning," suggest the activity of the brute prompted by appetite or fury, or that activity of man which has its source in his appetitive passions. But the criticism may be pushed even further than that. Bergson says that "the free action agrees with the whole of our most intimate feelings, thoughts, and aspirations, with that particular conception of life which is the equivalent of all our past experience—in a word, with our personal

idea of happiness and honour." This is a profound truth, expressed in Bergson's peculiarly vivid style. But the word which haunts one in all such passages is "our." How has this experience become "ours"? In what sense is there an "I"? How has the organization of these states taken place? Our past experience enters into our present in the shape of ideas which give our character a certain bent by establishing a permanent motive; which are, in a sense, living things with hands and feet. But how was that past experience acquired, how was the permanent motive formed, in the case of rational beings? Our character, as Bergson says, is altering imperceptibly every day, and these new acquisitions are blended with our self, not merely grafted on to it. But what is the condition of the admission of an idea into the very fibre of our psychical life? No satisfactory answer to these questions can be found in the expression of Bergson's thought. He draws attention to the fact that certain ideas "are not incorporated in the fluid mass of our conscious states," that "many float on the surface like dead leaves on the water of a pond," that "it is by no means the case that all conscious states blend with one another as raindrops with the water of a lake." But he has not pursued the question as to what constitutes the passport of an idea into the active life of the soul. In one place he speaks of those feelings and ideas which never blend perfectly with the whole mass of the self as being "the result of an improperly assimilated education, an education *which appeals to the memory rather than the judgment*." Now, if Bergson had pursued the thought here suggested, he would surely have found himself compelled to alter considerably his account of the self as pure duration, while at the same time he would, perhaps, have removed a decided defect in his treatment of human freedom.

For does not the admission that any idea which is to become an integral factor in the life of the self must appear, in the last resort, before the bar of a *judging* self, involve the further admission that this self which "decides," "ponders," "reasons," "judges," is elevated above the self which is described as "heating" and "boiling over," whose essence is revealed in pure memory; whose existence is the continuous life of a memory which pushes the past into the present, in an activity other than that of judgment and reasoning? He would have seen that what he has called pure duration is only one aspect of the existence of a self-conscious rational subject, of whom memory is a function.

This admission must, however, be made. No idea becomes truly *mine* until it has come into relation with me as a judging self. Every idea which enters vitally into my progressive life must receive its passport from my self. In that aspect of the conscious life with which we are now directly concerned, no idea becomes active until it is judged as *good*. An idea may be present to consciousness as an object which I contemplate and examine as an assayer might examine a specimen of ore, but in that case it remains quite inert; it is, in a sense, external to me. But let me judge it as good, and immediately it "quivers with life," it has become an integral part of me. Consequently it immediately tends to pass into action—either mental or bodily action—thereby gaining a "vital and causal" value, and acquiring the personal tinge of feeling which it derives from being mine, and by which I identify it as mine. Bergson, speaking of the beliefs to which we most strongly adhere, says that, in a certain sense, we have adopted them without any reason, and that what makes them valuable in our eyes is that they match the colours of all our other ideas. They do match the colours

of all our other ideas, but—and this is the vital point—that is only because we, as self-conscious subjects, have judged these beliefs as good in the light of an end which is for us the supreme end, to the realization of which all our activity is directed. It is not strictly true to say that we have adopted them without any reason. They have become *our* beliefs because *we* have, explicitly or implicitly, attributed to them the predicate "good." The whole dynamic content of my consciousness has become "content" only because it has been distilled through the alembic of a self-conscious *I*.

It may not be clear how an idea conditions bodily acts and determines physical behaviour, but that is not the crucial point of the problem concerning freedom, for, so long as attention is confined to bodily behaviour, one would hardly be so bold as to say that man is free. Nor is it possible to vindicate human freedom on psychological grounds, *i.e.* by an attempt to follow the translation of an idea into bodily activity. The fact of freedom must be grounded in the nature of the original activity of the self. Kant saw this clearly. "If," he says, "we could investigate thoroughly *all the phenomena of his* (*i.e.* man's) *choice*, there would be *no single* human action which we could not prophesy *with certainty*, and recognize as necessarily arising from its preceding conditions. In respect of this empirical character there is thus *no freedom*." [1]

The self above referred to is not "amorphous," "indifferent," "immutable," "a colourless substratum." It is a reality whose existence consists in activity, and whose nature reveals itself in reflection. This view of the self is well expressed by a distinguished colleague of Bergson's. "The consciousness which is apprehended in reflection is not something empty and inert, a simple

[1] *Critik der Reinen Vernunft* (Kant). Ed. Hartenstein, p. 380.

'form.' It is, on the contrary, something full of concrete determination. It has a living content. In the second place, it is never perceived in the state of repose, of equilibrium, and of indifference. It is change, and perpetual aspiration to new changes—not to modifications which come to it from external sources without its concurrence, but to modifications of which the subject, through its ideas or feelings, is the operator or the co-operator. In the third place, the end of the changes which are accomplished in consciousness is not outside consciousness itself; it consists just in the conservation and the growth of all the functions of the conscious life." This is a more concrete and intelligible self than that which is described as pure becoming. It is an organism of conceptual elements, not empty forms, but active, living universals, more and more differentiated, and yet unified with increasing completeness by the original activity of the self, according to principles which reveal themselves as fundamental in its structure. The activity of this organic self is tinged with feeling which marks its activity as personal.

From this point of view we may find ourselves in agreement with Bergson when he says that for a conscious being to exist consists in changing, to change in growing, to grow in indefinitely creating itself. But we go further. We throw the stress on *itself*, and we say that the existence of the self consists not merely in creating, but also in *re*-creating. The conscious life is not merely a mass of interpenetrating states passing imperceptibly to a heterogeneous state which contains the previous states and something more besides; it is primarily and fundamentally a self whose very existence consists in this re-creation of itself which, we may say, takes place in the practical judg-

ment (however vague it may be, and whatever form it may take) that life is unconditionally good, and in the activity, mental or bodily, which immediately follows upon that judgment. In this way the two fundamental characteristics of the self may be preserved, its self-identity or permanence and its diversity or continual change; while at the same time a basis for freedom is found in this *ego* which refers its acts to itself as subject and as cause, and which more fully knows itself to be a free responsible agent in proportion as it becomes present, in reflection, to and for itself.

Now, it is just this "I" of which Bergson takes no account. His self is a heterogeneous succession of states, but the supreme condition of there being these "organized" and "living" states at all is omitted. For him, individual selves are balloon-like things filled with memory ideas in a state of greater or less condensation. These are affixed to bodies, which form the point, or outlet, so to speak. The personalizing agent which draws these condensed ideas out of the current of duration is the body, and the permanent element in the conscious life of such an individual self is conceived, in Spinozistic fashion, to be the idea of the body. If this be true, then it becomes evident that the fact and guarantee of freedom must be searched for elsewhere than in the activity of such a self. Kant sought beyond the "empirical" self in the "intelligible" self for this guarantee, and Bergson is compelled to a similar procedure. In *Matière et Mémoire* and, to a fuller extent, in the essay entitled *L'Effort Intellectuel*, the effort which takes place within this individualized self is examined, and turns out to be an insinuation of spirit into matter. In order to become aware of free activity Bergson must rise above the human self and enter into an *élan* which is, if not strictly external to

the individual self, at least supra-personal. In plain language, this means that the nearer the approach is made to the ideal of freedom, the less human does the activity become, the more individuality is lost sight of, and at the extreme limit personality would entirely disappear in unhindered, undetermined activity, which is not *yours* or *mine*, but that of the cosmic *élan*. That this is the upshot of Bergson's treatment of freedom is confirmed when it is remembered that, as already explained in Chapter I., the body, consciousness, intelligence, memory, are all means to an end, the free passage of the psychical impulsion. Now, any theory which involves the consideration of man as other than an end in himself is inimical to human freedom. Indeed such a theory cuts away the foundation of morality altogether. If human freedom is to be established, that can be achieved only when it is shown that man has a self-originating power of self-perpetuation. This is one of the thought-treasures which Kant has bequeathed to us, and which is the basis of all true religion, the central fact of the teaching of the great Galilean. Kant formulates his categorical imperative thus: "Behave always in such a way as to treat humanity, in thy own person as well as in that of every other, at all times as an end, never merely as a means."

Bergson speaks in *L'Evolution Créatrice* of our placing our will in the impulsion which it prolongs. If that could be done, our freedom would lie in the self-originating, self-determining act by which we sank our wills in this all-comprehending will. But we should thereby commit moral suicide. The most that we can do if we are to preserve our souls alive is to bring our wills into harmony with this wider will. The alternate course implies that we become a means, a channel. If

we keep to the strictly ethical level the same truth manifests itself. The ideal society is not one in which all the individuals yield to "a formidable impulsion," but one in which the personal aim of each individual is harmonious with that of every other. Not community of purpose even, but harmony of purposes—that is the condition of an ideal state. Not subordination, but harmonious development of personalities, is the end to be achieved. "Be a person and respect other persons" —only on such conditions is morality possible. It is no explanation of *human* freedom, but rather its denial, to affirm that freedom is attained in an act by which, if that is possible, we transcend the individual human state.

Kant found it necessary to describe freedom as noumenal. He counselled men to act "as if" they were free, and to treat other men from this point of view, but freedom was for him merely a standpoint. It was not a fact which ever comes within human experience. To phenomenalize it was to destroy it, for the law of mechanical causation of means and end is a universal and necessary condition of all experience of phenomena. He sought to save freedom—this was the goal of all his thinking—by his distinction between understanding and reason, between categories and ideas, between the phenomenal and the noumenal, between "two kinds of world, two kinds of reality, two kinds of action." By confining the sphere of application of the categories, he made way for the possibility of freedom. The empirical person is, like all phenomena, subject to the law of mechanical causation. But, on the other hand, the "intelligible" character is "not the law of our causality, of the causality of experience. This indicates the necessity of succession. The intelligible law indicates the necessity of quite another kind of causality; it is a law for the causality of

noumena; but these are 'points of view.' Thus the intelligible character, the law of thinking, will exhibit a causality which is not characterized by the establishment of the sequence of cause and effect, but which can realize itself only in the regulative arrrangement of events."[1] Freedom, then, belongs to the intelligible character, to the *homo noumenon.* It cannot be grasped; it is a regulative maxim, a transcendental idea. "The freedom of the intelligible character... signifies the spontaneous, original choice, accomplished outside of time, of the *homo noumenon.*"[2] The activity of the empirical person, which falls entirely within experience, is to be ascribed to a "character" which lies entirely beyond experience, the behaviour of which cannot begin in time, nor be subject to any of the conditions of time-experience. We may say *that*, but not *what*, freedom is. Now, Bergson's claim amounts to this, viz. that it is possible to grasp this noumenal freedom, which Kant regarded merely as a "standpoint," a "maxim," an "idea." It is possible, according to Bergson, as we saw in Chapter I., to instal oneself in this free activity, and then to follow the passage from free or "intelligible" to empirical activity. In this process of translation he finds the type of true causality.

If the choice lay between Kant's position and that of Bergson, I should feel compelled to ally myself with Kant, for there is a true sense in which the subjective function in which freedom lies is ungraspable in thought, as we usually understand that term, and the starting-point of Bergson's "true" causal progress is essentially unrealizable within experience.

In the first place, as it has already been pointed out, the flux which is asserted to be freedom is arrived at by a negation of thought, by an elimination of the per-

[1] *Kants Begründung der Ethik* (Cohen), p. 245. [2] *Ibid.* p. 126.

manent and the systematic, and what remains is a sliding mass of ideas and feelings akin to Herbart's mobility of *Vorstellungen*. "Our household animals," says Herbart, "play as the insect cannot. The human child plays and imagines infinitely more: and herein is displayed that mobility, that ease in changing objects which we straight away, without any reference to morality, recognized as a real approach to freedom." But Kant has, in the *Critique of Practical Reason*, provided in advance the refutation of such a conception of freedom, which he characterizes as "fundamentally not a whit better than the freedom of a roasting-spit." He says, "with regard to that freedom which must be considered as the ground of all moral laws . . . it is immaterial whether natural causality is defined through motives which lie *in* the subject or which are *external to* him. In the first case, it does not matter whether this causality is necessary through instinct or through rationally thought-out motives, if these determining ideas . . . have indeed the ground of their existence in time, and that too in *previous conditions*, and these again in preceding ones, and so on. For, however inward these motives may be, whether they have a psychological and not a mechanical causation—*i.e.* whether they bring forth action through ideas and not through bodily movement—yet they are always *motives* of the causality of a being so far as his existence is conditionable in time, therefore so far as his existence is necessitated by past time. These conditions, then, if the subject is to act, *are no longer in his power*, and thus though certainly leading him to psychological freedom (if this word be taken to signify a merely inner connection of the ideas of the soul), still bring him under the necessary laws of nature." [1]

[1] *Kritik der praktischen Vernunft* (Kant), ed. Rosenkrantz, p. 227.

In the second place, and this is of primary importance, the starting-point of Bergson's "true causal" process is incapable of being grasped within experience. Kant may have been wrong in thrusting freedom into the noumenal sphere, but he was right in so far as his argument implies that will cannot be made an object of knowledge. Bergson himself says that the pure becoming which in the causal process becomes differentiated is essentially incapable of being fixed under the regard of consciousness, and Dwelshauvers, whose thought is in many respects closely akin to that of Bergson, says: "The apperceptive unity, the unifying activity, is never fixed for consciousness in a representation or in a concept; it is not fully conscious. Reflection may afterwards evolve the meaning of it, by analysis of the data of consciousness.... It is an activity more profound and direct than discursive thought, because it is more unified, its parts interpenetrate more."[1] Again: "The intuition deals with the spiritual act itself. It is necessarily inseparable from emotivity, consequently it is, from the point of view of classical psychology, *confused*. We may say that it is condemned to remain confused, and that it is impossible to render it clear, to translate it into an objective representation, to conceptualize it. This would be to annihilate it."[2] This last sentence puts the matter admirably in a nutshell. The same thought is elaborated by Professor A. S. Pringle-Pattison when he argues that "it must be for ever impossible to phenomenalize an action; we cannot objectify the subjective function as such."[3] *Knowledge* of will never becomes identical with will.

If the nature of the cognitive act which has been argued for at an earlier stage in this work be admitted,

[1] *La Synthèse Mentale* (Dwelshauvers), p. 38. [2] *Ibid.* p. 41.
[3] *Man's Place in the Cosmos* (A. S. Pringle-Pattison), p. 80.

if the subject-object relation is the supreme relation of cognition, it is clear that there is a point at which the limits of human cognition must be fixed. The subjective function, as such, cannot be cognized in the ordinary sense, for it would have to become an object, and so would be no longer subject. Knowledge is always knowledge of something. But is not this exactly in line with Bergson's argument? It is, so far, but at this point Bergson introduces another *kind of knowledge*, which is substituted for knowledge through judgments. It is this step which cannot be permitted, for it involves the identification of cognition and feeling or of cognition and will.

Cognition involves the subject-object relation. Feeling, as such, is purely subjective, and thus can never become cognitive. Feeling is primarily the immediate awareness of the functioning of the self or of will. It must not be imagined that feeling exists apart from cognition. Feeling, cognition, and will are inextricably intertwined, mutually dependent in human experience. But feeling, in the purest state which we can imagine, is already "a note of interrogation," which is answered immediately, however vaguely, by the self, functioning in thought. It may be said that existence is immediately given in feeling, but the judgment of existence implies cognition, and cognition implies functional activity. These are distinguishable elements in experience, and no one of them can be resolved into the other. Feeling is a continuous stimulus to cognition and will, and with the development of knowledge it shows no tendency to resolve itself into cognition. Cognition is always designed to fulfil some purpose—it may be further knowledge; it may be a purpose which lies beyond knowledge itself. Here again the purposive activity is not to be identified with the cognitive process. It is, so to speak, the striving which

includes that process. The progress of cognition is from problem to problem, but these problems present themselves to persons who feel and who are dominated by purposes.

The abstract independence of each aspect of spirit may be emphasized from another point of view. In so far as cognitive, the self is not personal, for the categories of the understanding which are conceived to form the fundamental groundwork of the self may be considered as also the fundamental groundwork of the universe. It is only when the sphere of will and intelligence is entered that individuality is encountered. It is true that, bearing in mind Kant's distinction between *Menschheit* (humanity) and *Mensch* (individual men), we must admit that ultimately the purposes of the individual and those of humanity as a whole are identical, that "if the individual constructs a world for himself, this world cannot, in the last resort, remain for itself, it must itself be ranged under *one* last law with everything else, the law of *universality*. It does not thereby lose its selfhood, but, as a matter of fact, gains it for the first time."[1] Nevertheless the individual rises to the conception of an end which embraces a society, however narrow or however extensive, only through his capacity to conceive himself as an individual, *i.e.* as an end in himself. Thus the will is a condition of personality. Feeling, however, is entirely subjective, and may be considered the most emphatically individualizing of all. Because man is a feeling and willing subject he is in a degree impervious to other selves. There is a point at which community ceases, and the experience becomes mine—peculiarly, exclusively mine. What does this imply but that "the subjective function as such" can never become an

[1] *Philosophie, Ihr Problem und Ihre Probleme* (Natorp), p. 104.

object of presentation, and, further, that knowledge is not to be identified with living, which involves in addition feeling and will?

Does the choice lie, then, between Bergson's intuition and Kant's noumenal freedom? Not necessarily. These are in reality fundamentally identical, since the intuition implies the elimination of knowledge. Possibly the clue to a satisfactory solution is suggested by that acute thinker Berkeley. "There can," he says, "be no *idea* formed of soul or spirit: for all ideas whatever being passive and inert cannot represent unto us, by way of image or likeness, that which acts." Bergson and Kant are both in agreement with Berkeley up to this point. But Berkeley proceeds: "Such is the nature of spirit, or that which acts, that it cannot be of itself perceived, but only by the effects which it produceth."[1] Our being may, *does* indeed, consist in evolving, in willing, in organic effort. Professor Ward says somewhere: "We *are*, being active." This is true, whether the activity be regarded from the cognitive or volitional point of view. But Berkeley states an equally undeniable truth when he asserts that we know the nature of that which acts "only by the effects which it produceth." Cognition does not exhaust the nature of that which acts. Feeling and will are equally essential aspects of experience. We have immediate certainty of existence in feeling and activity, or better, in felt activity, but what that activity is, what the nature of existence is, is *known* only in cognition. We *know* that we are free, not because we are expert psychologists, or because we are aware of an internal heating and blazing up which no amount of reasoning can stem, or of an impulsion which courses through us; not because at any stage the act of knowledge is

[1] *Principles of Human Knowledge* (Berkeley), § 27.

identical with the generative act of reality; but because we discover that we are capable of ideals which are peculiarly our own, not imposed on us from without, but originating in us as uncaused causes; because we are "autonomous"; because the conviction of duty is indubitable. These facts lie open to consciousness. They proclaim our freedom and form the groundwork of morality, and they all fall within the sphere of intelligent comprehension. It is not necessary to suppose that freedom is an inference. Free activity is immediately grasped in feeling, but its nature does become transparent in knowledge in the effects which it produces. One result of the subjective function is the process of knowing, which is logical throughout; another is action according to motives. All that we know of the function of the self is in these results, but the open facts of purposive action, with the consciousness of responsibility; the glow of satisfaction which we have on the occasion of acts in which we truly realize ourselves, and the pain of remorse which we feel when we fall below our self-constituted ideal, are enough to vindicate our essential freedom. On the other hand, the feeling of activity which is an implicate of all our experience as free beings, and upon which Bergson rightly lays such stress, never, as such, becomes an object of cognition. Cognition never passes over into feeling or into undetermined, felt activity. Feeling, in itself, is absolutely inarticulate until it is determined in cognition, and cannot, therefore, itself be substituted as a separate kind of knowledge. It is rather the promise and the potency of knowledge, as well as a stimulus to further knowledge. But knowledge, it must be repeated, is always knowledge of existence, whether it be of the existence of the subject or of the object; it never becomes identical with the subject or with the object.

Knowledge as distinct from being, cognition as distinct from feeling and will, involve judgment, and judgment involves difference and determination.

If Bergson holds that, as a psychologist, he can perform so violent an effort of abstraction as to feel the fluid, fleeting passage of duration, the activity of will as such, then, with all due deference to his wonderful skill in psychological analysis, it may be submitted that he is mistaken. If he remains conscious of anything at all at this stage of abstraction, it might with a fair degree of plausibility be maintained that he feels, to use his own phrase, "an inquietude of the body." In this obscure region such a delicate shade of distinction cannot be discerned as that between a "movement of mental states or mental oscillations" and their *harmoniques sensorielles.* Our light at this point is much too feeble to enable us to gain any knowledge of such extremely fine differentiations within this "indistinct," "unstable fringe" of feeling which loses itself in night. As we descend from the human level, experience becomes progressively less cognitive, and approaches more closely to the vague flow of organic sensations which a drowsy animal before a fire may be supposed to feel. If, on the other hand, we imagine ourselves rising above our human mode of cognition, then we must needs conceive that at the extremity we should "see God and die," for in the moment of supreme intuition we should cease to exist as men. In neither case should we have knowledge of human freedom.

Bergson's treatment of activity guided by motives is incomplete and unsatisfactory. He does not definitely discuss the character of a motive, but incidentally it appears that he has in his mind three possible conceptions of its nature. *First,* a motive may be regarded as a force acting upon the mind and impelling it to a

definite line of action. *Second*, a motive may be only a rearrangement of past ideas which the mind projects into the future, the realization of which consequently involves no evolution, no creation of anything new. *Third*, a motive may be the adumbration or prefiguring of future activity, a kind of forward look by which we become vaguely aware of that into which the present is about to develop.

It does not require great consideration to show that not any one of these ideas is satisfactory. The first may be set aside, for reasons which Bergson himself suggests. The second and third are not the outcome of an accurate analysis of experience. A critical examination of mind leads to a distinction between judgments concerning what is and judgments concerning what ought to be, between *sein* and *sollen*. So far as knowledge is concerned, it is the one organ which knows throughout, but the matter, so to speak, of judgment, differs in the two cases respectively. In the second class of judgments "the object is thought as something yet to be produced." This is not a question of possibility or of theory; it is a question of fact. The mind is able to present itself to itself as something which it has not yet been, yet which it is aware it ought to become, and which it may strive to become. It may be said, then, that the ultimate motive is to be found within the effort after self-perpetuation, development and perfection of being, and of course this development and perfection lies in the future. But the point to be emphasized is that the essential element in human motives to continued action is the consciousness of a perfection but partially attained, of an intellectual, moral, spiritual experience which, as yet incompletely harmonized, is conceived of as attaining to greater, and, finally, complete harmony. In most

cases this ideal does not come into clear consciousness; it is generally only implicit. But it reveals itself to reflective thought, and, once grasped, it is seen to have been active throughout. At every stage in man's mental history there has been a more or less clear consciousness of himself being something other than he at the moment is and which he knows he ought to be. Under the guidance of the ultimate "end"—his self-perfection—the individual, in the particular circumstances in which he finds himself, faced by various possibilities of action, presents to himself an idea of himself as being at a more advanced stage in the attainment of his "end." He identifies himself with the idea, which immediately becomes dynamic and has for its ally the whole force of the willing personality. All the way his reach has exceeded his grasp, but he has not been ignorant of that at which he has grasped.

It is to be observed that this supreme motive is not a rearrangement of past ideas. It is the individual's continually renewed conception of himself as something new. In its realization of this conception the personality certainly evolves and passes into something new, something which never existed before—not new in the sense that the personality has been entirely metamorphosed into something quite heterogeneous, but in the sense that some progress has been made by the same personality towards the supreme end. The conception has passed from the sphere of *sollen* to that of *sein*. It is true that the nature of the supreme end reveals itself ever more fully as we follow on to pursue it, but, as stated above, reflection shows that it has been active throughout. From this point of view it would be easy to pass to a wider teleology, which reveals itself not only in the individual, but in history, and throughout the universe—a teleology which would escape the stric-

tures which Bergson has made upon the conception of teleology in general.

Further, such a conception of motives is separated by an immense gulf from that idea according to which a motive is a prefiguring or adumbration of that which we are possibly about to become. The notion of "ought" is an implicate of the former conception; that notion would lose all significance in the case of the latter. This is an important point, for it bears upon a fact which has already been emphasized, viz. the continual tendency of the intuition of freedom to become identical with the felt lapse of undefined ideas which one might conceive the life of the animal to be. The lower the descent is made in the animal scale the more nearly is this state realized—the vague anticipation of a possible future. Thus, through the consideration of Bergson's treatment of motives, further confirmation is given to the argument that in the intuition of freedom *knowledge* of freedom is at a minimum.

We are now in a position to consider Bergson's account of causation, and the relation of that principle to the fact of freedom, and this consideration may furnish further proof that the intuition of freedom demands the extinction of cognition. Few will be so bold as to attempt to controvert his general conclusion that the principle of mechanical causality cannot be used to disprove human freedom. Kant has bequeathed this thought to us, and Bergson has emphasized its truth. But while this position demands full recognition, the process by which it has been reached is not beyond criticism.

In Bergson's work there are two distinct views with regard to the principle of causality. In the first place, he deals with the principle of mechanical causation as the law of regular succession of phenomena, and the

point upon which he lays the greatest stress is that according to this law the same causes produce the same effects, and that if causality, as a necessary principle, is to have any meaning, causes must be capable of reappearing, "identical elementary conditions" must repeat themselves. Looked at in this way, the principle of causality is a necessary relation in the sense that it asymptotically approaches the principle of identity, the "absolute law of our consciousness." But the principle of causality, he goes on to say, can never, in so far as it is supposed to bind the future to the present, take the form of a necessary relation, "for the successive moments of real time are not bound up with one another, and *no effort of logic will succeed in proving that what has been will be or continue to be, that the same antecedents will give rise to identical consequents.*" (If this statement is intended to contain alternatives, there is much doubt as to their equivalence.) On this view, then, the principle of causality as a necessary principle would be applicable only in a world such as Bergson's material world, in which the past is *repeated* in the present; it would not be strictly applicable in a world of change, of real succession, a world in which time actually counted; and it would lose *all* meaning if we sought to apply it to the facts of inner consciousness, of pure duration, for "a deep-seated inner cause produces its effect once for all, and will never reproduce it."

I have already expressed my hearty concurrence with Bergson's general position that the law of mechanical causation can never be used as a means of disproving human freedom, that, indeed, the ordinary application of this principle, as such, cannot take place within the domain of human activity without the mutilation of the facts to which it is sought to apply it. The relation between motives and volitions, and between an exertion

of force and the act that springs from it, is essentially different from the relation between causes and effects throughout nature considered from the mechanical level. The real *differentia* of actions determined by motives is that here there is conscious anticipation of an end to be attained, and if we look at nature from the mechanical point of view we cannot say that there is anything like this in the physical world. But this is the vital point to be explained in any attempt to account for free activity, and its explanation demands the introduction of a principle higher than that of strictly mechanical causation. If we mechanize free activity we eliminate the essential factor. While this is so, it is necessary to add that far too much stress is laid by Bergson on the necessity of repetition if meaning is to be ascribed to causation. The principle of causation is the law of *change* in the universe, in so far as that comes within our experience, and it primarily and fundamentally asserts that every *event*, every *change*, comes out of something—it must, we say, have a cause. In this sense, the law of cause and effect is the ground of induction. In scientific research the investigator seeks to arrive at a point at which he can say that either the event under consideration has no cause, has come out of nothing, or else a certain set of conditions, which he has isolated, is its cause. The first alternative is rejected as contradicting the fundamental law of causation, and the second alternative being adopted, we have at once a causal law which is universally true. The essential point to be noted is that before the category of causation can come into play at all there must be the experience of succession, of change. This experience is given in sense perception, and is the hint, so to speak, which suggests the application of the category of causation. We seek to discover in it a causal connection. We do not set out from two isolated

objects which lie "loose and separate," but from a concrete fact, which develops, falls apart in the progress of thought into cause and effect which are grasped as differences in a unity. In experience of a purely static world, then, the principle of causality, even mechanically considered, could have no place. The clue for its application would never be forthcoming, and, consequently, it would never reveal itself in experience of such a world.

Bergson's view that the essence of causation is that the same produces the same, or that if causation is to have any meaning it must be true that what has been will be or continue to be, is not justified. On the contrary, the nearer we approach to mere repetition the more entirely does causation lose its significance. Unchanged recurrence is destructive of comprehension by means of the principle of causation, for in such repetition there is nothing which demands the use of that principle for its comprehension.

The principle of causation would not lose its significance even if sets of conditions did not repeat themselves; it would cease only to have practical value. As Professor Bosanquet says: "Everything must be followed by something—must be continued by something on every side, and, between any two somethings within a unity there must be a determinate inter-connection presented by the content of that unity. I repeat, *the consideration that every such inter-connection might be received as unique, the repetition of it being excluded by the individuality of the whole, does not in any way militate against its character of a universal law.* On the contrary, such uniqueness is the true characteristic of all that is universal, a character which the commonplace conception of abstract generalization tends to obscure."[1] In another place the

[1] British Association Address.

same thinker declares: "Causation does not depend upon mere repetition of conditions. Everywhere intelligence lies in the tracking of the universal which is continuity through difference, essentially creative and not dependent on an unchanged recurrence."[1] This truth is similarly expressed by Fouillée. "The principle of causality does not consist, as some imagine that it does, in saying simply that the same causes produce the same effects, but in saying that any effect whatever, even if it be unique in the world and *sui generis*, without anything identical appearing before or after it, is bound to a whole of reasons or of causes which determine it such as it is at the present moment."[2] But Bergson clings to his contention that the form of intelligence is essentially identical with the form of space. Hence his position that causation, as it becomes more intelligible, necessarily approaches the principle of identity.

As a matter of fact, the law of causation carries us *away from* the bare principle of identity. Elaboration of causal laws means development of differences, or rather development of a richer unity through differences. It is not a bare unity. It is unity in infinitely variable differences. The true causal interpretation of the universe is not the establishing of sequences between objects or events which lie loose and separate, but, as Bosanquet says, the tracking of the universal, which is unity through difference. The objects are only objects as elements in this unity, and the interpretation of the universe cannot make the remotest pretension to completeness until it has tracked these universals.

Bergson has, indeed, over-mechanized the scientific interpretation of the universe, and made the breach too wide between mechanism and teleology. The truly

[1] *International Journal of Ethics*, Oct. 1910.

[2] *La Psychologie des Idées-forces* (A. Fouillée, vol. ii. pp. 306-7).

causal interpretation is implicitly, to some extent at any rate, teleological. The true type of causality is to be found in the causal activity of the self. It is here that real activity is primarily encountered, and we have already seen that our knowledge of that activity consists in the cognition of an idea or motive or "end" present and active throughout human life. This "end" becomes transparent to knowledge in the particular motives which guide our daily activity. Each of these is an actively working idea. Now, our causal interpretation of the universe is anthropomorphic through and through, and consequently is, in a sense, implicitly teleological. The tracking of universals is at bottom a tracking of the meaning and design of the universe. Of course the difference between actions achieved in pursuit of an end consciously anticipated, and the actions of the unorganized world, must not be minimized. In the one case, the scientific investigator does not know, at any rate he does not concern himself about, the end which nature is fulfilling; in the other, we deliberately interpret our own activity in the light of a consciously anticipated end. There is an ethic of man, but not of nature, as the positive scientist regards it. While we investigate nature as it is, we investigate ourselves as we ought to be. Nevertheless, the progressive elucidation of ourselves as we are involves a progressive clearing of that which we aim to be, an elaboration of the ideal implicit in consciousness. The cause, that is to say, can be clearly defined in knowledge only in the effect. In the causal interpretation of nature, though confined to an examination of nature as it is, we elucidate the meaning of the end implicit in nature so far as it has been achieved. Observe, then, the bearing of this argument upon the problem of freedom. We agree

with Bergson and Kant that the principle of causality does not contradict freedom, but we go further, and assert that it derives its complete meaning from the consciousness of activity on the part of free individuals. Causality comes to its full meaning only within the sphere of human activity. If that be so, freedom is not the inscrutable thing which Bergson would have us believe. Our way of knowing nature by means of intelligence does not prohibit us from knowing anything at all of our own activity. Indeed our knowledge of nature is dependent, in the last resort, upon the fact of our knowledge of our own activity as subjects. We cannot "objectify the subjective function as such," but we can and do comprehend that we are free causes, and in the light of that comprehension we can attempt to give an ethical interpretation of the world in addition to a scientific, and the one does not exclude, but rather completes the other. The possibility of that revelation within knowledge of active universals, which appears in the articulation of concrete nature which the physical sciences have achieved and are achieving, is, in the last resort, inextricably bound up with the possibility of man's grasping, within knowledge, the meaning of the activity of selves as free subjects.

There is a large element of truth in Bergson's argument, taken as a whole. A mechanical interpretation of the universe in causal laws is, and for us must always remain, inexhaustive. A universe which would be capable of exhaustive explanation in causal laws would be one which had completed its "end," and in that case the developing human being in such a universe would be an insoluble enigma. But the basis for this assertion of the always-to-be-supplemented mechanical explanation is to be found in the fact that we know ourselves as aiming at an end which we will,

and which is not yet fully achieved. Consequently, we realize the possibility of an ethical interpretation of ourselves, and, further, will not be satisfied until the universe as it is for us is interrogated from the ethical point of view. That is to say, we rise to the conception of the inexhaustiveness of mechanical explanation because we know ourselves as active in view of an unfulfilled end, and when we interrogate nature from the point of view of purpose—*i.e.* from an ethical point of view—we discover that she has an answer to our questions. There is then no need to posit, with Kant, "noumenal freedom," nor, with Bergson, intuited freedom which is ungraspable in cognition as such. In both cases freedom ceases to be an attribute of man as he is, and the basis of ethics for man in his present condition is removed. The fact of purposive action, the fact of self-originated motives, the fact of duty, all lie open to consciousness, and these constitute our knowledge of freedom.

We shall now pass to the second view of causation which is involved in Bergson's thought. This conception is implied in Chapters II. and III. of *Matière et Mémoire*, suggested in the closing part of the *Essai*, and more clearly stated in the article entitled *L'Effort Intellectuel* which appeared in the *Revue Philosophique* for January, 1902. According to this view the true meaning of causality is to be found in an idea intermediate between the idea of efficient causation, or causation by impulsion, and final causation, or causation by attraction. Causal activity consists "in the gradual passage from the less realized to the more realized, from the intensive to the extensive, from a state of reciprocal implication of parts to a state of juxtaposition of these parts to one another." This is the guiding idea of Bergson's theory of evolution as contained in

L'Evolution Créatrice, in which, as we have seen, he seeks to show that intelligence and instinct, for example, though originally interpenetrating, have become differentiated in the progress of evolution or true causality. There he emphasizes the fact that this causal progress is intermediate between a radical mechanism and a radical teleology, although more nearly related to the latter.

Let us examine this view of causality as it is applied to the action of the individual. This process has been followed in detail in Chapter I. The free decision is supposed to take place outside the limits of all determination, in pure duration, the innermost life of the self, but this free decision immediately tends to realize itself, with us, in action on matter. It is the translation of the "idea," the innermost content of consciousness, first into images and then into action, which Bergson calls pure causality. He holds that in following this process from the idea to the effort, and from the effort to the act, we may set out by installing ourselves in the idea—in the case of memory, in the "pure" memory. This is not a hypothetical state, but is actually realized in a violent effort of abstraction. It is felt as "pure becoming." "Present and active though it be in the process of the calling up of images, it is effaced and disappears behind the images once they are called up." It is "fleeting," "not to be fixed under the regard of consciousness." It is "of the very essence of fluidity and mobility." As soon as the process of translation begins there is a vague, confused notion of the end which is to be attained, a dim idea of a future action conceived as realizable. This dim idea is the only thing which in Bergson's thought corresponds to a motive as ordinarily understood. If this be so, then the volition is not determined by the motive; the

volition takes place in the depths of consciousness—or rather, unconsciousness—is uncaused, undetermined, and the so-called motive is a kind of prefiguring within consciousness of the translation of this volition into action.

It has already been argued that the starting-point of such a causal process is only asymptotically approached in experience. But when denuded of its metaphorical dress, interpreted in intelligible terms, and disencumbered of the intuition and of that view of intelligence which we have argued to be untenable, this theory presents the outline of an acceptable account of the development of knowledge. The intuitional starting-point may be replaced by that hypothetical mass of feeling out of which knowledge seems to come—a limitative conception never actually realized in human experience, but which, one may imagine, is nearly approached in the case of an animal, the consciousness of which is elevated very little above the level of feeling. Bergson should logically admit that consciousness begins when this nebulous mass begins to condense. Let us rather say that consciousness begins when difference appears in this mass pregnant with knowledge, *i.e.* when cognition begins—in fact, let us say at once that consciousness and cognition are coextensive. Gradually, according to Bergson, this fluid mass of interpenetrating parts becomes a multiplicity of juxtaposed parts—images, he would say—inert objects, and the spatial relation between these objects is intelligence. Let us say, instead, that as the differentiation incident to cognition, and developed through judgments, proceeds, objects, clusters capable of still greater differentiation, emerge on the field of vision. These objects are incomplete individuals constructed on the pattern of our own self, not pieces carved out of a homogeneous

plenum. With progressive clearness we see them to be related to other objects—spatially, it is true, but causally also—and our knowledge of them increases with our knowledge of these relations. The objects are seen to be individual parts of a larger individual, members, so to speak, of a larger organism. Thus there appears, along with the differentiation, an increasingly complete unity. The universals which are tracked are not empty, inert, fundamentally spatial forms. They live as organizing principles in particulars which are thus constituted individuals.

This double development in the direction of a more differentiated unity on the one hand and of a unity persisting throughout these differences on the other is the very genius of knowledge, as indeed it is the characteristic of life. In the case of life, it is strongly emphasized in those parts of *L'Evolution Créatrice* in which Bergson affirms that development in the direction of both individuality and association is an essential, not a contingent feature of the evolution of life. Why not recognize that it is also an essential characteristic of the growth of knowledge? Why insist that knowledge exhibits only the one tendency, viz. that towards disintegration?

The reason is not far to seek. It is to be found in Bergson's initial extrusion of all real activity from the intelligent self. Reasons have already been given why this procedure is unwarrantable. However, once he has entered into this way, Bergson follows it resolutely, and logically enough, seeks for real activity, for freedom, outside the sphere of knowledge. Knowledge is differentiation, disintegration, the temporary negation of spiritual activity. It comes out of free activity, prepares the way for free activity, but it is not itself activity. But the implications of such a position must

be faced. If knowledge and activity are foreign to each other, it is clear that activity can never be grasped in knowledge, and Bergson's intuition of freedom makes as little contribution to our knowledge as Kant's noumenon. Both lie beyond the limits of possible experience. Neither adds one iota to our knowledge.

To sum up: if the explanation of freedom is to be found at all, it must be sought in the nature of the self as such, not in any attempt to transcend the limits of that self. Bergson is enthusiastic and eloquent when he speaks of "the absolute reality of the person," of the affirmation by consciousness of human liberty, of the infinite gulf between the animals and man, of the probable survival of the person after death. Like all great metaphysicians, he makes us feel the vastness of the universe in which we live, and the richness and variety of the wider life in which we are partakers, but it is in the inherent nature of ourselves as individual persons capable of living a truly personal life that the basis of the assurance of any immortality worthy of the name is to be found. It is not meant by this to deny that the hope of immortality finds its foundation in trust in the nature of God, but the theistic faith has its philosophic basis, in turn, on the knowledge of the nature of our own self as it becomes transparent in reflective thought. God may be perfect Freedom, an ever-active Will; it is not, however, in living the life of God, but in living the life of man that we find and realize our freedom, or even rise to the conception of freedom. Indeed, we achieve the dim conception of God's free activity only because we have discovered in ourselves the power of self-originating action. Further, the immortality which we seek is not a mystical swooning into the life of God, but a perfect realization of ourselves as unique individuals. We are not mere

pulses in the life of God; we are not *merely*, in Bergson's picturesque phrase, "rivulets into which the great stream of life has become divided," if by this it is suggested that our free activity is to be found beyond ourselves. It seems, however, that in order to gain the intuition of freedom of which Bergson speaks we would require to pass out of ourselves into the larger life, and so lose our *selves* in that life. The immortality which such a view of freedom suggests is that of *Nirvâna*.

This somewhat lengthy examination of the *Essai*, in which the method of intuition is applied primarily to the problem of the nature of the inner life, derives its justification from the fact that it is a new method of philosophy that is under review, and it seems desirable to limit oneself to a consideration of the application of that method in one crucial instance. So far as matter is concerned, intelligence alone, as Bergson admits, is progressively attaining to a more thorough knowledge of it. The demand for an intuition of matter thus seems to be superfluous, and therefore that intuition has been only incidentally brought under review in the preceding criticism. Finally, if the method is not acceptable when we are dealing with the life of the individual, then *a fortiori* it cannot be admitted when we come to treat of the wider life of the universe.

CONCLUSION

ESTIMATE OF THE VALUE OF THE INTUITIVE METHOD

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THE conclusions to which the preceding criticism has led are, in the main, negative. I have attempted to show that the view of intelligence which preponderates in Bergson's works is not adequately supported; to trace the steps which led him towards this view; and to establish the position that the nature of intelligence is not such as to require to be supplemented by intuition, but simply by feeling and will. Criticism of the intuition of time and that of freedom was directed to show that they add nothing to the conceptions of these realities which intelligence supplies; that the so-called intuition of time might, with as much justification, be called succession or becoming, which signifies a backward step in knowledge, the loss of a true distinction, consequently a step towards confusedness; that the time intuited is best described by negatives; that the intuition of freedom is, if anything, that of "pure indetermination, which has no more right to be qualified as freedom than to be dominated chance"; that it really implies that if the psychologist or the philosopher can say "here causes cease," he is entitled to add "here commences freedom"; that the intuition demands the elimination of cognition altogether, and is of no more

value for knowledge of human freedom than a noumenal idea.

Some remarks are necessary, in conclusion, upon the intuitive method in general. One prominent claim which Bergson makes for his method is that it banishes the insoluble contradictions and oppositions into which intelligence leads us, "by causing the problems round which the combat is sustained to disappear." Indeed he goes on to say that "this power of the immediate, I mean to say, its capacity for resolving oppositions by suppressing problems, is the external mark by which the true intuition of the immediate is recognized."[1] This claim reminds one of Kant's "as if." If the conclusions to which our criticism has led be admitted, it must be acknowledged that this claim is too great, and that the supposed solution of antinomies is illusory. These antinomies rise within knowledge. They are problems of reason, and it is no satisfaction to reason to affirm that they can be solved by will or by life. The only acceptable solution would be one which rationally explained the emergence of these oppositions; and such an explanation is not impossible. In a perfectly coherent, perfectly rounded-off system of knowledge—the consummation, not the negation of conceptual representation—it is conceivable that these antinomies would disappear. They present themselves at a certain stage in knowledge, and are due to the finiteness and imperfection of our human condition. Their presence, thus capable of explanation, need not throw complete discredit on the form of knowledge. In any case the explanation of them which implies a leap out of knowledge into something which is not knowledge, whether it be the Kantian

[1] "Vocabulaire philosophique" (*Bull. de la Soc. Fr. de Phil.*, Août, 1908), p. 332.

noumenon or the Bergsonian intuition, is not one which will satisfy reason, to which alone they present themselves as problems.

Considered generally, the intuitive method involves the assumption that knowledge of reality *as it is for itself* is different in kind from knowledge of reality *as it is for a knowing subject.* The difference is not one of degree. Further, reality as it is grasped by reason is essentially different—except, perhaps, in the case of matter—from reality as it is for itself. "The duration," Bergson says, "in which we see ourselves acting" is fundamentally different from "the duration in which we act," and this line of cleavage runs throughout Bergson's philosophy. But have we not here another version of Kant's distinction between "phenomena" and "things-in-themselves"? Such a distinction, whether expressed in the French or the German philosopher's way, is unnecessary and unjustifiable. It is unnecessary because our knowledge of reality, though incomplete, is, so far as it goes, accurate and valid. It is unjustifiable, because, if reality has an existence for itself, we can never know that that is so, much less know what the nature of that existence is. Is there not a subtle contradiction in the assertion that the knowledge of reality demands our annihilation as intelligent subjects? Let it be admitted that life is not exhausted in knowledge, and that one of the features of our human knowledge is its capacity of infinite expansion: it by no means follows that knowledge can or ought to be identified with living, nor that its extension to infinity would imply its identification with life. Knowledge has its own characteristics, which must not be lost sight of. It is reflection upon life, and involves in every case a reference to the unity of self-consciousness. This reference to a self is the supreme relation; in this relation

the distinctive thing which we call knowledge consists. It is always a self which knows and it always knows something. There is no knowledge where there is no polarization into subject and object. Reality *known* must then be reality as it is for a subject, but there is no ground for the affirmation that, because that is so, reality as it is for itself differs, except in degree, from reality as it is present in or to a finite mind.

Further, let it be admitted that knowledge appears to come out of and melt into something which we may term intuition. It does not follow that the conceptual system which is found at all stages between these two conceivable limits is essentially different from what is given in feeling or from what is immediately grasped in a perfectly articulated knowledge, such as one may conceive that of God to be. It may legitimately be affirmed that the conceptual representation was implicit from the beginning, and that at the end it would be perfectly transparent to consciousness, having developed gradually in knowledge. In fact, if relativism and scepticism are to be avoided this seems to be the only tenable view, for, if the conceptual representation was not implicit in the given reality, it must have been imposed on it from without, and we have, under such conditions, no ground for the assertion that it is not quite foreign to reality; while, if the infinite development of the conceptual representation led to its annihilation, we should have to acknowledge that the form of human knowledge is radically vicious, in which case we are on the straight road to absolute scepticism.

Bergson's attempt to avoid relativism and scepticism and yet to separate intelligence and intuition as two *kinds* of knowledge, causes some ambiguity. This ambiguity has already been commented upon, but, for

the sake of clearness, it may be recalled here. Sometimes Bergson indicates that the thought construction is, though not an exhaustive, yet a true articulation of the reality given in intuition. Thus he says: "If I replace myself in duration by an effort of intuition, I perceive immediately how it is unity, multiplicity, and many other things besides."[1] Again, in *L'Evolution Créatrice*, he speaks of free acts which intelligence can resolve indefinitely into intelligible elements without ever completing the analysis. In another place he says that the *élan vital* escapes a study of this kind, both because of its *infinite richness* and because of its divisibility. Many more quotations in line with these might be made; but the general tendency of his thought about concepts, which is also the view consistent with his theory that intelligence is dominated by the law of identity, is that concepts are empty forms which are imposed on immediately given reality. We are told that the intellect has a natural knowledge of certain very general relations which the activity peculiar to each individual carves into more particular relations; that the concepts of unity and multiplicity, for example, are ready-made garments which will suit Peter equally as well as Paul, because they *do not outline the form of either of them*; that to analyse consists in expressing a thing in terms of that which it is not; that concepts are really symbols which are *substituted* for the object which they symbolize; that the concept extracted from the object has no weight, being nothing but the shadow of a body; that *to think* consists ordinarily in going from concepts to things, and not from things to concepts; that to *know* a reality is, in the usual sense of the word "know," to take concepts already made, to set

[1] *I.M.*

them side by side, and to combine them together until one obtains a practical equivalent of the real. Bergson expressly identifies himself with James in the view of the concept which the latter has presented in *A Pluralistic Universe.* The thesis there put forward is that concepts negate the inner nature of reality altogether. In fact, this latter view is fundamental in Bergson's philosophy, and, if it be displaced by the first view of the relation between intelligence and intuition, a great deal that is claimed as peculiar to the intuitive method is no longer so.

There can be no doubt that, in the first set of passages quoted and in many others besides, Bergson emphasizes a fact which needs to have stress laid upon it, especially when some forms of idealism are kept before the mind. His argument that, no matter how far the conceptual construction is carried, it never exhausts the nature of reality, is clear and unanswerable. It cannot be doubted that, in James' words, "Reality, life, experience, concreteness, immediacy—use what words you will—exceeds our logic, overflows and surrounds it."[1] This fact has already, several times, been noted. Reality is *given*, if it is known at all, in an immediate perception or contact or feeling. Concepts without percepts are empty. Abstracted from objects of perception, inner or outer, they are indeed mere shadows with no weight. But Bergson goes too far and involves himself in difficulty when he argues that our thought construction is a mere symbol of the immediately given reality, and that concepts "negate the inwardness of reality altogether." Percepts without concepts are blind, but if the light within us be darkness how great is that darkness. It is one thing to hold that conceptual knowledge does not *exhaust* the nature of

[1] *A Pluralistic Universe* (William James), p. 212.

reality; it is quite a different thing to contend that concepts negate the nature of reality. The first position is undoubtedly true; the second is quite false. According to this second view, concepts are abstract ideas which have got beaten out somehow in the course of experience, and which are applied from the outside to a given reality, to which they are utterly foreign. If that be so, then Bergson is faced with the whole difficulty of the Kantian position in regard to the relation between the categories and the raw material which is the datum of sense. This consummation need not surprise us, for, as already pointed out, Bergson adopts Kant's position to this extent that he conceives intelligence as a form. We saw him setting out with an intelligence equipped with the form of space, a homogeneous and empty medium, which it throws beneath reality, and we find him, later on, describing intelligence as "a form without matter." The fact is that while Kant makes intelligence a faculty of knowledge, Bergson considers it as primarily an instrument of action, and only secondarily as a faculty of knowledge. The same difficulty, however, confronts both thinkers—What is the clue in the nature of reality which demands the elaboration of any concept, or of one concept rather than another? Why, for example, do we call one observed sequence causal, and another simply a sequence, or, from Bergson's point of view, act as though the one were causal and the other not? The only satisfactory reply in both cases is that we *discern* certain distinctions, which we may also be said to *make* in the sense that these distinctions do not impress themselves upon our mind as a passive recipient; they are there *for us* only through the activity of our discerning intelligence, but they can be there *for us* only because they were immanent in the given from the very

beginning. If we proceed to disconnect these aspects or abstracts from the given in which we have discerned them, and to give them an independent reality, we are on the wrong track. They have meaning and reality only as aspects of that which is given. The concept is the idea of an attribute particularized, not of a bare attribute, which is, in fact, a bare nothing. Apart from their individualization they are empty abstract ideas, and if we seek to image them, they take some spatial form. Time and space have for us no reality apart from the succession of ideas in time and of material things in space; causation loses all its significance if we attempt to consider it quite independently of particular causes and effects. Berkeley has taught us this lesson.

If we recognize frankly the obvious finiteness of our knowledge, omit all presuppositions as to the form and nature of intelligence, clarify our thought on the theory of the concept and on the characteristics of the cognitive act, the way is open for a view of the relation between the immediately given and our conceptual construction or knowledge of it, which while it opens out a boundless field for knowledge, escapes all the difficulties necessarily encountered by every dualistic theory because of its antithesis, in whatever form it may be expressed, between sense and understanding. The path is clear for a theory according to which intelligence becomes, as well as a faculty of knowledge, a genuinely efficacious instrument of life, because it does reveal, however incompletely, the inwardness of reality in all its degrees—the reality in which we are immersed and which is given in inner and outer sense—and it enables us not only "to find our way about" in that reality, but to make it the vehicle of our activity, and thus to develop our inmost nature as purposeful, rational, individual agents.

As indicated above, there is no need to suppose that the acceptance of a thorough-going theory of the validity of knowledge carries with it the admission that the nature of reality is or can be exhausted in cognition. Feeling and will are undeniable aspects of our consciousness, and must not be omitted in any attempt to decipher the meaning of the universe. In addition, the recognition of the finitude of human knowledge has been frankly made. If we consider reality from the point of view of space, or time, or causality, in each case the progress of reconstruction is seen to be indefinite. This proves, if any proof were needed, that our grasp of reality in knowledge is finite and incomplete. The limits within which knowledge moves are too evident to be overlooked. Our knowledge is necessarily human. That sounds trite, but it has needed emphasis again and again in the history of speculation. Possessed of a keen desire to pierce the mystery which surrounds us, and which, when we are in certain moods, presses heavily on our spirits, men have again and again attempted to rid themselves of the limiting condition of their humanity, but the history of such attempts has made it clear that the apparent transcending of human knowledge has been really an undoing of it. We cannot, by any means, get rid, even if we so desire, of the finiteness of our present condition. Our mind staggers at the thought of the possibility of omniscience. Such things are too difficult for us. We are not, as Bergson says, the vital current itself, nor can we ever become that, although he suggests that we can when he invites us to place our will in the vital impulsion which it prolongs. Nor, on the other hand, do we ever approximate to the point of view of the merely sentient animal. These are the two limits within which knowledge moves. It appears to come out of the immediate and it appears to go into

the immediate, but what the immediate as such is we cannot say. We do know, but in part; there is always more to know, but it is more of the same kind; we see puzzlingly, but, when the enigma is solved, it is invariably along the main lines of reason. It is true that we must put our problems "one by one," and although our solution of each of them issues in a higher synthesis, there is no indication that the synthesis will ever be perfected. While the progress of science, for example, makes our knowledge, from one point of view, more deductive, since we arrive at a more comprehensively unifying generalization, it sends us back questioningly to the enigma, raising a multitude of new problems which, in their turn, must be put "one by one." Reality, as given in immediate experience, is, in Bergson's expressive phrase, "the gold piece of which we shall never finish giving the change" in discursive thought.

But, while the limits of our knowledge are thus openly recognized, care should be taken not to allow its range to be limited over much, nor to sanction the condemnation of knowledge in any department because of its inexhaustiveness. Although our knowledge is, and must be, phenomenal, yet it is true. It expresses the reality of the universe for us, that is, incompletely, but truly so far as it goes. When it is said that knowledge is phenomenal it must not be concluded that it is not true of reality, for phenomena are real. The word phenomena was chosen in order to draw attention to the fact that our knowledge is not yet completed, not that it is radically incompetent to grasp any degree of reality. Again, when it is stated that knowledge expresses the nature of the universe "for us," it is not to be inferred that there is any other universe than that which we know, but that we do not know the universe in its entirety. The universe interpreted by reason is

the real universe truly interpreted. There is no other universe than the one we know, and there is no other knowledge, of a different *kind*, than human knowledge —at least we cannot assert that there is. When, within cognition, a higher standpoint is reached, the knowledge gained on the lower levels is not thereby excluded. From the higher point of view the knowledge is fuller, but not different. For example, the teleological interpretation of an organism does not make the anatomical or the physico-chemical account untrue, it merely causes us to realize that each of these is incomplete and that reality is richer than the mechanical sciences reveal it to be. One thing seems certain: the process of cognition will not be completed by discarding the form of knowledge—and this is what is demanded by the predominating view of the relation between intuition and intelligence, the view that they are *opposed*, though, ostensibly, complementary ways of knowing.

Let it be supposed, however, that the intuitive method, as Bergson expounds it, is possible, and that it were adopted by philosophers as a substitute for the critical method of reflection, then philosophy would be compelled either to remain for ever inarticulate, or, should it seek and find utterance, to fall immediately into contradiction, or, finally, to clothe itself in metaphor and symbol.

It would be foolish to deny that flashes of insight are possible. The efflorescence of genius in human life, in the departments alike of science, art, morality, and religion, is there to testify to this higher power. The genius in art, by his superior insight into the beauty and inner harmony of the world, seizes, and expresses more or less perfectly, an aspect which men of lesser mould immediately feel to be a revelation of the heart of reality—he strikes, so to speak, the chord of a

universal sensation, and so brings humanity to a self-realization immediately perceived as such. The genius in morality, with his piercing vision, penetrates into the moral order of the world, and his ideals exercise a compelling force on all earnest spirits; they need no arguments to support them, but only clear presentation. In following them we know that we are advancing towards more complete self-realization. The metaphysical genius rises to a higher point of view, from which the universe may be interpreted in terms of cognition, and his insight commends itself to us because it enables us, in unifying our experience more completely, to realize ourselves more fully as intellectual beings. These are the men who can say:

> "... With an eye made quiet by the power
> Of harmony and the deep power of joy,
> We see into the life of things."

But for the attainment of such "intuitions" there is no law. The wind bloweth where it listeth and we hear the voice thereof, but cannot tell whence it cometh. As Socrates said in regard to the poets, they seem to achieve their work, not by wisdom but by a "natural inspiration." The insight of the genius is "inevitable," and the purer the genius the more "inevitable" the work. We cannot analyse the steps by which the intuition is secured, although we may say, at least, that the process is not non-rational, since there are laws of beauty and of goodness. But, since we cannot analyse fully the act of genius, we are precluded from making the intuition a method of philosophy. Just as no strict following of scientific method will beget genius when it is non-existent, so no rules which can be laid down for metaphysical intuition can create in him who obeys them the insight which Bergson

compares to that of the artist. Bergson himself affirms: "To him who is not himself capable of giving to himself the intuition of the duration constitutive of his being, nothing will ever give it." Any method which is put forward must be capable of being followed; but the very nature of the insight of genius prevents it from being even stated as a method.

It may, however, be urged that Bergson does state rules for the application of his method. He says, for example, that the intuition may be gained after a long companionship with the external manifestations of reality, as these are systematized in the physical sciences, and, again, that many different images borrowed from very different orders of things may, by the convergence of their action, direct consciousness to the precise point at which a certain intuition is to be had. But this suggests something very different from the intuition of the artist. It suggests the genius of the man of science, who, after synthesizing a great many facts, flashes out an hypothesis which furnishes an explanation of the facts observed and many more besides. Scientific genius consists just in this power of rational synthesis and the ability to formulate comprehensive hypotheses. Let us pursue the examination of this manner of regarding the metaphysical intuition. The metaphysician "sets out from the totality of observations and experience gathered up by positive science." "It is not merely a question," Bergson goes on to say, "of assimilating the salient facts; it is necessary to accumulate and fuse together such an enormous mass of them that one may be assured in this fusion of neutralizing, by means of one another, all the preconceived and undeveloped ideas which observers have deposited, unknown to themselves, at the base of their observations. Thus only is the crude materiality of the known facts

disengaged." The metaphysical intuition thus gained is not, as we have seen, the synthesis or resumé of pre-existing knowledge. But neither is the hypothesis formulated by a scientific genius or a vigorous thinker merely a resumé of the work of his predecessors, nor is the concept which he supplies to link together the observed facts. He elaborates something new. Whence came the extraordinary synthetic and creative power which he exhibits no one can say. One thing, at least, is certain, namely, that the synthetic activity is not alogical. To be convinced of this, one has only to consider that an hypothesis as to laws passes into an accepted theory only when the logical processes implicit in its formulation are elaborated. The vigorously active mind, in an act of subconscious synthesis, went through these processes at a gallop, so to speak, while the more cautious, patient mind would have had to walk slowly, step by step. Nevertheless, the procedure in both cases is essentially the same. It is at least not non-logical. What "makes the mind go" is not presentable to thought; still less is it explicable why one mind "goes" much more strongly than another. The one fact upon which we may insist is that, once going, its procedure is logical throughout. The fact of knowledge must be posited to begin with. We cannot get behind it to see how it originated, but once having originated it develops by judgment and reasoning.

If the procedure of the scientific discoverer and the intuitionist metaphysician are identical, as I have tried to show, then the sharp distinction between intuition and intelligence is broken down, and, should philosophy decide to follow this new method, guided by the rules which Bergson has laid down, then philosophy becomes merged in science. The philosopher will be an expert psychologist, mathematician, physicist, or biologist, or

better, he will be all these combined, besides being a careful student of the history of metaphysic as it "lives in the philosophers themselves." Indeed, in one of Bergson's latest statements, he contemplates the possibility of science "deciding, some day, to enter into the way which philosophy will henceforth travel. When that happens we can call science what scientific men to-day call philosophy."[1] This fact is brought out strikingly by M. Le Roy, a close follower of Bergson's method, in an article entitled, *Sur la Logique de l'Invention.* "What," he asks, "is philosophy, if not the mind of invention become conscious of its processes and its powers, the mind of invention penetrated with a light which manifests it to itself—briefly, reflected invention? To seize the principle of progress by which verification is effected in the order of knowledge, realization in the order of being, is the specific rôle and the peculiar office of philosophy. Its aim is less to gain results than to arrive at becoming gradually conscious of the secret force, the interior power, of mind and of life."[2] He goes on to speak of this interior power of mind and life as a dynamic, impalpable mobility, a fleeing continuity of nuances harmoniously blended. The philosopher, then, will have to be a scientific inventor, as well as a skilled psychologist who can, in a violent effort of abstraction, catch a glimpse of this inner impulsion.

We come back now to the point from which this argument set out. The difference between the scientist and the philosopher seems to be that, while the philosopher must remain dumb, or at the best inarticulate, and his intuition ever unexpressed, the scientist will be permitted to analyse his intuition as exhaustively as

[1] Letter to Mr. H. Wildon Carr, published in *Proceedings of Aristotelian Society*, 1909-1910.

[2] *Revue de Metaphysique et de Morale*, 1905.

he can, or as little symbolically as possible, and express it in language, the language of reason. But surely philosophy will have made a very bad bargain. The advantage here is all on the side of the scientist. Both have precisely the same experience, for, while the philosopher is supposed to confine himself to the inner experience and the scientist to the external reality which is the object of his investigation, it has, nevertheless, to be remembered that in this act of invention or intuition the distinction between subject and object has vanished, and the act of knowledge coincides with the generative act of reality. Bergson is much too sanguine, then, when he predicts that science will one day enter into the way which now the intuitionist philosopher travels. It is too much to hope for that science will ever abandon its clear and methodical, though always-to-be-completed expression, its systematic construction, in order to take the path indicated by a philosophy whose expression, since it discards intelligence and the language of intelligence, must remain metaphorical, symbolic, and confused. One may predict, however, that, if philosophy is about to adopt the method indicated by Bergson, we are on the edge of the slough of scepticism, at the threshold of a new era of philosophical agnosticism, similar to that which followed, in some quarters, the philosophy of Kant, and which Bergson would desire as little as he.

Even if, however, philosophers do agree to adopt the intuitive method, it seems that the last word in philosophic discussion must still be uttered by reason. Indeed, Bergson himself says : " There is not any durable system which is not, in some at least of its parts, vivified by the intuition. Dialectic is necessary to put intuition to the test, necessary also in order that intuition should

break itself up into concepts and propagate itself to the minds of other men.... Dialectic is what ensures the agreement of our thought with itself. But through dialectic—which is only a relaxation of intuition—many different agreements are possible, while there is only one truth." [1] This quotation makes a large admission, and really yields much that I am concerned to claim, for it restores reason to its supreme place as the faculty of knowledge, not merely from a practical point of view, but as the arbiter in speculation. The intuition must submit itself, in the last resort, to intelligence, to be "put to the proof," and the harmony of our thought can be secured only when it is rationalized through and through. This, then, is the final test of the truth of intuition, not its power to lay antinomies, but its inherent rationality. Thus reason is supreme in philosophy as in life. There *is* only one truth, as there is only one reality. The one reality is God, and the one perfect rounded-off truth is His, but we may confidently abide by the faith, which an examination of the upward progress of knowledge suggests, that, though man can never approach the point of view of God, the one Reality, though more than, is not essentially different from what we conceive Him to be, and that His knowledge, though it "transcends" ours, is not of such a kind as to exclude it, but to catch it up in an infinitely wider vision. Meanwhile, for us, in speculation as in practice, reason is, and must remain, the only trustworthy guide.

In the foregoing examination of Bergson's thought, the dominant feature in his philosophy has received emphasis and has been made the subject of criticism, namely, the *opposition* between intuition and intellect.

[1] *E.C.* p. 259 (Eng. Tr. p. 251).

This has, indeed, been regarded as fundamental in his thought. At this stage, however, I wish to draw attention to the fact that there are many indications of a revolt within Bergson's own mind against this opposition. The ambiguity which is shown in his statements of the relation between the immediate intuitive grasp and the conceptual construction has more than once been referred to in the preceding pages. But while this tendency to treat intelligence as ideally something more than bare identity is willingly and unreservedly recognized, it must be insisted that reconsideration of the nature of intelligence, under the guidance of the principle that "to judge, whether immediately or mediately, is to see the element of sameness *in*, and not independently of, difference," would involve the letting-go of the greater part of that which is claimed to be peculiar to the method of intuition. It would lead directly to the acknowledgment of the supremacy of intellect—not of understanding as divorced from sensibility, but of the faculty of knowledge in its entirety, which functions in judgment, and expresses itself in the form of relation between subject and predicate. This would mean the lesion of the nerve of intuition as a distinctive method of philosophy, and the establishment of such a method, as distinctive, is the avowed aim of Bergson's thought.

The main problem which faces the mind, after a study of the works of this great thinker, is whether it is necessary to retain this opposition between two procedures of thought contrary in direction in order to find room for the recognition of a fact which he, by his brilliant thinking and writing, has done so much to bring prominently into view—the fact that activity is an essential feature of reality, not merely that individuals are active, but that the whole must be interpreted

in terms of activity. In the emphasis which he has laid upon this fact the significance of Bergson's philosophy for future thought lies. He protests consistently and throughout against all forms of philosophy which imply that all is given—a "block universe" to which change is in the last resort foreign, which stands over against the mind eternally the same, waiting to be deciphered. For such a static whole he substitutes a world which lies wholly open in the direction of the future, a world which, as a whole, is developing into something which it has not been and is not yet. The differentia of the individual is its activity, and the nature of the whole must be such as not to exclude activity, growth, evolution — the essential characteristic of reality in the highest grade which we know. While the finite individual is not yet complete, the whole is not yet complete. Without us it cannot be perfect, and its very completion must include the perfection of activity. Man, the most clearly defined individual, is a member of the whole, and his perfection does not lie in stagnation, cessation of activity. He realizes himself now through action, and as eternity is not the negation of time but its infinite extension, so the perfection of activity is not its own annihilation. If it could be regarded as an evanescent accident of his individuality, activity would, of course, not have the same significance for metaphysical construction; but man is, being active; whatever else may be said to be "mere appearance," activity is indubitably real. It is the capacity of real action which erects man to individuality, and the ultimate whole cannot be less than a perfect individual.

Does the recognition of all this and the insistence upon it demand that we, as philosophers, should forswear reason and accept intuition as a substitute? I do

not think so. If individuality is to be our starting-point in the interpretation of the universe, then the highest form of individual which we know must be our guide. No one will deny that personality is the supreme type of individuality, and the ultimate nature of personality is seen to be unity in difference, not unity opposed to difference, but a unity which continues, perfects itself in difference. Every attempted explanation or understanding of the whole must be dominated by this supreme category of self-consciousness. It was just now stated that personality is unity *in* difference, the one *in* the many, and the whole will have to be understood neither as an unchangeable self-identical unity nor as an ununified many. Spinozistic undifferentiated "substance" and Bergsonian heterogeneous "becoming" are both over-emphasized aspects of personality, the one of its multiplicity, the other of its unity. If Hegelian rationalism leads to a construction of the whole which excludes the possibility of real activity in time, Bergson's theory of becoming robs reality of all unity and reduces it to a viscous mass of impermanence. If the cardinal defect of Greek philosophy was, as Bergson urges, that, setting out from ideas which exist in eternal stedfastness, it sought to pass by way of diminution to the mobile, and thus made activity a negation, the main fault of Bergson's philosophy is, that setting out from pure activity, he seeks to pass by way of slowing down to the immobile, and thus makes permanence a negation. All these philosophic positions have been reached by a series of oppositions, which are fundamentally identical, the opposition of identity to diversity, of unity to multiplicity, of permanence to activity. To all assertions that such an opposition is demanded by thought, that permanence excludes activity, unity multiplicity, identity diversity, the one answer may be given. Self-

consciousness is the indubitable example of the union of such apparent opposites. The self is ever becoming, "still achieving, still pursuing"; always manifesting greater variety, yet always self-identical; always approaching to perfect unity. The whole is at least the most perfect unity and yet most perfectly differentiated, inexorably stedfast and self-dependent, yet active in the highest degree. All forms of idealism which point to an eternal and unchangeably complete whole which somehow reproduces itself in finite minds must be set aside, for the putative activity involved is merely apparent. It is equally certain that that form of idealism or spiritualism which presents the individual as a rivulet in a stream of becoming, and which opens the way to pluralism, is untenable, for the reality of individuality is thereby endangered, and the only ground for the assertion of real activity rendered insecure. The only acceptable presentation of idealism is one which will embody the element of truth contained in these two forms. There is so much in the course of Bergson's thought that is suggestive of such an idealism, that many, I am sure, will look to him for a reconsideration of the nature of intelligence-knowledge, which may lead him to see that, in the actual life of reason, concepts, whether in judgments or in deductive and inductive reasonings, are "supple," not fixed, that they are incomplete individuals, not empty forms. Thus the light of his brilliant intellect would be thrown more effectively than hitherto on the nature of the whole.

Indications of the presence of the germ of such an idealism within his thought are contained, for example, in his recognition of the nature of the infinitesimal calculus, in his obvious feeling after the conception of a unity of direction of the psychical *élan*; in his state-

ment of the relation between associationism and individualism in the evolution of life; in his determined opposition to materialism, naturalism, and a too narrow rationalism which would represent reality as exhausted or exhaustible in cognition alone; in his insistence that life is too rich and too various to be imprisoned within any finished logical construction of it which human reason can project; in his contention that "ideas" are essentially dynamic; in the repeated implication of the principle that the nature of any effect cannot be grasped by the conjunction of a number of elements, mechanically grouped together as its cause, but that the full meaning of the cause becomes apparent only in the effect; in the constant and emphatic stress which he lays upon activity, creative activity, as the essence of the life of man and the universe.

Such a reconsideration would, however, involve a thorough-going change in the work which he has already produced, and, with this work alone before me, I am forced to the conclusion that, in his reaction against rationalism or intellectualism, he has failed to give sufficient value to an essential truth which Hegel has bequeathed to us—namely, that in all man's thinking, feeling, and willing, he thinks, feels, and wills as a rational being. With keen metaphysical vision, Bergson sees an aspect of reality which has too frequently escaped consideration in the course of the history of speculative thought, but in his legitimate insistence upon the reality of that which he sees, he has omitted to take sufficiently into account that other aspect which Hegel, above all, has emphasized, and his "Duration" must be placed beside the absolute "One" of Plotinus, and the "Infinite Substance" of Spinoza as an example of the illegitimate passage from the apprehension of a mere aspect to the assertion of its independent reality.

It is the hypostatization of the "subjective function as such."

This consideration of Bergson's philosophy may be brought to a close by applying to Bergson himself the words, full of eloquence and admiration, which he used concerning M. Felix Ravaisson-Mollien towards the close of an address delivered before the members of the *Academie des Sciences Morales et Politiques*: "The history of philosophy brings prominently before our minds an unceasingly renewed effort of reflection which labours to attenuate difficulties, to measure, with a growing approximation, a reality incommensurable with our thought. At intervals a soul arises which seems to triumph over these complications by dint of simplicity—the soul of an artist or a poet, which, remaining near its source, reconciles, in a harmony appreciable by the heart, terms irreconcilable by the intelligence. The language which it speaks when it borrows the voice of philosophy is not comprehended in the same way by everybody. Some judge it vague, as indeed it is in its expression. Others feel it precise, because they experience all that it suggests. To many ears it bears only the echo of a past which has disappeared; but others apprehend in it, as in a dream, the joyous chant of the future. The work of Ravaisson will leave behind it, then, very diverse impressions, as every philosophy must do which addresses itself to feeling as much as to reason." The poet, the artist, the seer, are the men who, more than the professional philosophers, have preserved alive the inmost soul of humanity, and their work may be addressed primarily to the heart, but it is always to the heart of a rational being, and the ultimate bar at which philosophy, poetry, art, morality and religion must stand, when their truth is to be judged of, is reason. Knowledge, in any of its

degrees, is not and cannot without self-extinction become identical with being; it is being reflected in and for a rational mind; and philosophy is not life, but the attempted interpretation of life by means of reflective intelligence.

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EXTRACT FROM THE TRANSLATOR'S PREFACE

THIS work has been revised in detail by the author himself, and the present translation is the only authorised one.

It may be pointed out that the essay on Laughter originally appeared in a series of three articles in one of the leading magazines in France, the *Revue de Paris*. This will account for the relatively simple form of the work and the comparative absence of technical terms. It will also explain why the author has confined himself to exposing and illustrating his novel theory of the comic without entering into a detailed discussion of other explanations already in the field. He none the less indicates, when discussing sundry examples, why the principal theories, to which they have given rise, appear to him inadequate. To quote only a few, one may mention those based on contrast, exaggeration, and degradation.

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